JISC DEVELOPMENT PROGRAMMES

Project Document Cover Sheet

PROJECT PLAN

Project

Project Acronym	SPIE	**Project ID**	
Project Title	Shibboleth-enabled Portals and Information Environments		
Start Date	2004-07-01	**End Date**	2006-09-30
Lead Institution	Oxford University		
Project Director	Professor Paul Jeffreys / Dr Michael Fraser		
Project Manager & contact details	Dr Mark Norman Research Technologies Service, Oxford University Computing Services 13 Banbury Road Oxford OX2 6NN Email: mark.norman@oucs.ox.ac.uk Tel: 01865 273287 Fax: 01865 273275		
Partner Institutions	Bristol University (Institute for Learning and Research Technology Eduserv (Athens)		
Project Web URL	http://www.oucs.ox.ac.uk/rts/spie/ [under development]		
Programme Name (and number)	Core Middleware: Technology Development		
Programme Manager	Nicole Harris		

Document

Document Title	Project Plan
Reporting Period	
Author(s) & project role	Michael Fraser (Co-Director); Mark Norman (Project Manager); Francisco Pinto (Technical Manager); Jasper Tredgold (Senior Technical Researcher); Jan Grant (Senior Technical Researcher)

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Document History

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0.5	2004-08-22	For circulation amongst project team
0.9	2004-09-27	Draft to Nicole Harris and opportunity for final amendments from team
1	2004-10-04	Version 1.0
1	2004-10-12	Version 1.0 amended for online dissemination as PDF

1. Background

The Shibboleth-enabled Portals and Information Environments (SPIE) Project directly builds on the outcomes from other JISC-funded projects led, or significantly contributed to, by the SPIE partner institutions. These projects, namely the Subject Portals Project (SPP) and Digital Certificate Operation in a Complex Environment (DCOCE) Project directly relate to the challenge of access management within both the JISC Information Environment and institutional information environments. The SPP has demonstrated that access to JISC collections, via Athens, can be integrated within standards-compliant institutional portal frameworks uPortal. DCOCE, through its collaboration with Athens and the Oxford e-Science Centre, is piloting the use of Oxford-issued digital certificates for authenticated access to remote resources. SPIE, therefore, takes advantage of this work and its potential convergence to investigate seamless authenticated and authorised access across information environments, especially those managed by institutions, the JISC and e-Science. The deployment of the Shibboleth protocol within real life local and national applications for access to online resources gives the potential not only to integrate authentication domains within the UK but also to join together information environments internationally. The applications which will be Shibboleth-enabled through this project include: an institutional single sign-on application (Stanford Webauth); an institutional portal framework (uPortal); a portal framework currently utilised for national scholarly portals (SPP); a national single sign-on system (AthensSSO). Notable open standards with which Shibboleth will interoperate through this project include: WSRP, eduPerson LDAP schema, SAML, and Z39.50.

2. Aim and Objectives

The SPIE Project aims to demonstrate the effectiveness of Shibboleth in providing integration between institutional and national information environments, especially via enhanced portals and portlets.

The project intends to fulfil this aim by meeting the following objectives:
• Integrate Shibboleth within an institutional information environment, including both a portal environment and single sign-on authentication system;
• Deploy Shibboleth-related components and the Permis decision engine at Oxford University as a 'real life' testbed;
• Enable institutional users to access remote resources seamlessly by integrating local and remote Shibboleth domains;
• Evaluate the usability of the Shibboleth approach from the perspective of end-users and resource managers;
• Disseminate the results of each project deliverable widely within the UK and beyond.

3. Overall Approach

3.1 Strategy

The overall approach of the project is to build on the outcomes from earlier JISC-funded projects and services in the areas of access management across domains, in particular the SPP and DCOCE projects. The complexity of the project will be mitigated somewhat by the deployment of expert staff who were deeply involved in the development of the SPP and DCOCE projects. The project will take advantage of components already deployed either in pilot or production stage at Oxford University. The SPIE Project is an institutional project in that it both takes advantage of existing institutional access management components and also serves a broader institutional strategy to enable seamless access to digital resources within and beyond the institutional boundaries. The SPIE Project is also a collaborative project which recognises existing expertise and infrastructure within its partner institutions as well as within the JISC operating context as a whole.

The Project will be managed jointly with the ESP-Grid project (also funded within the Core Middleware programme and led by Oxford University). The Project Manager provides overall operational management whilst the technical manager will lead the technical development strategy and manage the technical team comprising a Senior Technical Researcher based at the ILRT and a Systems Developer based within the RTS. The project is directed by two co-directors and will be supported by an expert advisory committee.

The project's technical development activities fall into the following broad areas (later detailed within each workpackage):

3.1.1. Institutional Access Control Policy

• Identify and categorise protected resources within the institution and develop a draft access control policy.

3.1.2. Shibboleth-related architecture

• Components relating to user attributes
    • Deploy web-based authorisation service for management of attribute release policies;
    • Implementation of Handle Service and interoperability with institutional single sign-on authentication mechanisms.
• Components relating to resource attributes
    • deploy and optimise a local permissions service (with Permis).

3.1.3. Institutional middleware

• Integrate Shibboleth within a uPortal/Webauth architecture, to enable access to non web-based resources.

3.1.4. Interoperability between Shibboleth and WSRP

• Integrate Shibboleth with WSRP-compliant portal frameworks;
• Integrate Shibboleth with WSRP-compliant portlets;
• Integrate Shibboleth with WSRP-compliant access management package;
• Integrate Shibboleth and eduPerson Extension with WSRP-compliant user profiling;
The development approach will be similar to that undertaken within the SPP -- modular and extensible, taking advantage of proven Open Source solutions and emphasising the role of non-framework specific, standards-compliant portlets. The development environment will include the use of version control systems (e.g. CVS, Subversion), and IRC for virtual meetings. Dissemination will be undertaken via the project's web site and email list, together with active participation in relevant events and publications.

3.2 Scope and boundaries

The SPIE Project is focussed on the integration and interoperability of the Shibboleth architecture with key existing access management architectures and standards-based portals and portlets, for the purpose of enabling access to resources across boundaries, through a development approach which maximises reusability within other institutions. However, standards such as Shibboleth, WSRP, the eduPerson LDAP schema, as well as the national Athens service are crucial to this project. Portal frameworks and access management architectures not compliant with such standards will benefit less from this project than those which are (though the project follows JISC strategy in assuming that the takeup of such standards will increase). For the purposes of the project Jetspeed and uPortal will form the default testbed portal frameworks and Stanford Webauth, the default Web initial sign-on system.

3.3 Critical success factors

The following have been identified as critical success factors for the Project:

• Support for the integration and testing of relevant technical components within partner institutions, especially Oxford University.

• Collaboration or co-ordination with other projects seeking similar outcomes whether within the JISC Core Middleware Programme (e.g. Perseus, SSDS) or further afield (e.g. JASIG, Sakai).

• Ensuring the standards employed cope with Shibbolized information environments.

• Ensuring interoperability between AthensSSO, AthensDA and the project outputs.

4. Project Outputs

4.1 Tangible

4.1.1 Reports and documentation
- Project website
- Report and matrix resulting from access control survey
- Documentation relating to integration of Shibboleth with Stanford Webauth and LDAP services;
- Report on interactions with remote WAYF service (e.g. Eduserv);
- Report on best practice to achieve interoperability in the development of the enhanced authorisation service;
- Report on results of interoperability development between handle service and legacy systems;
- Report on best practice to achieve interoperability between institutional permissions service and locally-protected resources;
- Report documenting the procedures and results of making a WSRP-compliant container Shibboleth-aware;
- Report on Shibboleth-AthensSSO interoperability within the JSR 168-compliant SPP access management package;
- Review of work relating to passing on additional attributes within Shibboleth and user profile data model for portal personalisation;
- Report on results of Shibboleth-uPortal and Shibboleth-Webauth interoperability;
- Two usability evaluation reports;
- Minimum of four external evaluators reports.

4.1.2 Applications and technical resources
- Web-based authorisation service with API and Web Service interfaces;
- LDAP schema for attribute release policies;
- Bridging applications between a handle service and legacy access management systems;
- Permissions service with integrated Permis engine together with API and Web Service interfaces;
- Demonstrator(s) containing:
  - Integration of Shibboleth with SPP portal framework;
  - Enhanced SPP access management package enabling access to Shibboleth and AthensSSO domains;
  - Enhanced SPP-based cross-search portlet and demonstrator;
  - Enhanced SPP-based user profile package;
  - Enhanced uPortal access management package integrating Shibboleth;
- Open Source Software licence agreement.

4.2. Knowledge and other outputs

- Aim for at least two presentations at relevant conferences in the UK and one international conference;
- Aim for at least article in a relevant online peer-reviewed journal;
- Demonstration sessions within the stakeholder institutions and at relevant (JISC) events and conferences;
- Final project report;
- Outline proposal for the next phase.

5. Project Outcomes
- Proven convergence or overlap of local and national access management architectures;
- Coherent understanding of interoperability and usability issues relating to the deployment and integration of Shibboleth within institutional and extra-institutional portal frameworks.

6. Stakeholder Analysis

Stakeholder	Interest / stake	Importance
Oxford University Computing Services	The project serves a strategic objective to enable seamless access to local distributed resources through single points of access. The project is closely associated with the ESP-Grid project, and so with the Oxford e-Science Centre. The project will also assist in consolidating a centre of expertise for access management within the department.	High
Oxford University Library Services	OULS is about to launch the procurement process for a replacement Library Management System. The project has the potential to inform this process about interoperability and integration with access management systems, local and beyond.	Medium
User communities of participating institutions	It is essential that the application outputs of the project are proven to be unusable by students and staff within Oxford University and other institutions where the components have the potential to be deployed.	High
JISC	The JISC is the project's funding body and the project aims to contribute to the development of core access management middleware. How the outcomes of the project influence any subsequent production service will be an important consideration.	High
ILRT, Bristol University	The project complements the Groups Manager Project, also funded through the JISC Core Middleware Programme. Development or deployment of middleware infrastructure are key aims within the strategies of both the ILRT and Bristol University as a whole. The project has the potential to build on existing collaborations between ILRT and RTS.	High

Eduserv	The project will interoperate with various current and planned components of the Athens AMS (including AthensSSO, AthensDA and an Athens WAYF service). The project will provide a useful testbed and requirements indicator.	Medium

7. Risk Analysis

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Key staff resign during course of project	2	4	8	Depending on the stage of the project, second staff from within partner institutions or subcontract to appropriate third-party. In worst case scenario, recruit.
Joint project management leads to under-resourcing of project	2	3	6	Keep roles and responsibilities under review and try to prevent 'mission drift' in any one workpackage.
One or more of the workpackages proves to be more complex than originally thought	3	2	6	Seek external advice or consultation. Review workpackage and identify key dependencies and outputs. If necessary prioritise effort and decrease resource for less significant workpackage.
Agreement on attribute values between various parties proves time-consuming	4	2	8	Agree base levels of compliance and developing appropriate mappings.
Development of relevant components or reports by other projects in programme not synchronised.	4	1	4	Arrange early communication and information gathering with relevant projects and the programme as a whole to maximise chances of previewing results.

8. Standards

Given that this project aims to contribute to the JISC Core Middleware programme, with outcomes widely relevant to the development and deployment of national middleware infrastructure, the selection of and conformance with key technical standards is crucial. The following standards have been identified as especially relevant to the technical outputs of the project:

- Shibboleth 1.2/2.0: The project aims to ensure that the relevant technical outputs conform with Shibboleth 1.2 (but eventually with version 2.0 whilst ensuring backwards compatibility);
- Educause LDAP Schemas; especially eduPerson and eduOrg are relevant schemas to be considered. Any UK assessment of eduPerson and related schemas should be taken into account.
- SOAP: a protocol using XML for exchanging structured information in a decentralized, distributed environment which will be used by the project as the basis for developing Web Services.
- WSRP is a key component in the context of separate portal services deployed as Web Services.
- JSR 168 is a key component in the deployment of local portal services or portlets.
- Permis: key component in the context of Shibboleth deployment;
- SAML: key component in the context of Shibboleth/Permis integration;
- Z39.50: A key search and retrieval standard utilised, for example, by the SPP cross-search portlet and behind Search/Retrieve Web Services (SRW) .

9. Technical Development

The project will follow the good practice for distributed technical development achieved by the Subject Portals Project. In particular, the project will agree a common software development environment; make use of version control systems; hold regular virtual meetings using IRC (and archive the logs); hold, when agreed, face-to-face developer meetings for the purpose of solving specific issues or challenges. Much of the development practice relating to planning, designing, coding and testing will draw on lessons learnt from the code and practice of "extreme programming".

10. Intellectual Property Rights

The project intends to make use of Open Source applications where appropriate. The project will have a license to use the Athens agent. IPR will be retained by the institution responsible for creating it. A consortium agreement will enable project outputs owned by the consortium members to be released under an Open Source licence. Any outputs which depend on the Athens agent software will be excluded from this licence unless Eduserv agree otherwise.

Project Resources

11. Project Partners

Oxford University Computing Services, Lead Institution

Responsibility: WP1, WP2, WP3, WP4, WP5, WP6, WP8, WP11, (WP12), WP13.

Contact: Dr Mark Norman, Oxford University Computing Services, 13 Banbury Road, Oxford OX2 6NN. Email: mark.norman@oucs.ox.ac.uk.

Institute for Learning and Research Technology, University of Bristol, Partner Institution

Responsibility: WP7, WP9, WP10. Contributing to other relevant WPs as appropriate.

Contact: Jasper Tredgold, Senior Technical Researcher, Institute for Learning and Research Technology, University of Bristol, 8-10 Berkeley Square, Bristol BS8 1HH. Email: jasper.tredgold@bristol.ac.uk. Tel: 0117 928 7068. Fax: 0117 928 7112.

Eduserv, Associated Organisation

Responsibility: No workpackages allocated but agreement to provide secure access management to Athens protected resources within its information environment. Eduserv will claim direct costs only.

Contact: Lyn Norris, Manager - Athens, EduServ, Queen Anne House, 11 Charlotte Street, Bath BA1 2NE. Tel: 01225 474347. Email: Lyn.Norris@EduServ.org.uk

11.1 Consortium agreement

A consortium agreement is expected to be signed in October 2004.

12. Project Management

The organisation of the SPIE Project is as follows:
- **Project Directors**: Professor Paul Jeffreys and Dr Michael Fraser.
  Contact: OUCS, 13 Banbury Road Oxford, OX2 6NN. Email {mike.fraser, paul.jeffreys} @oucs.ox.ac.uk. Tel: 01865 273229 (Paul); 01865 283343 (Michael).
- **Project Manager**: Dr Mark Norman, 0.5fte (jointly with Dr Fraser until 1 Jan 2005) [reporting to the Project Directors].
  Contact: OUCS, 13 Banbury Road Oxford, OX2 6NN. Email mark.norman@oucs.ox.ac.uk. Tel: 01865 273287.

- **Technical Manager**: Dr Francisco Pinto, 0.5fte [reporting to the Project Directors]
  Contact: OUCS, 13 Banbury Road Oxford, OX2 6NN. Email francisco.pinto@oucs.ox.ac.uk. Tel: 01865 273273.
- **Senior Technical Researcher** (ILRT): Jointly provided by Jasper Tredgold, Jan Grant and Nikki Rogers, 1.0fte, [reporting as appropriate to ILRT]
  Contact: Institute for Learning and Research Technology, University of Bristol, 8-10 Berkeley Square, Bristol BS8 1HH. Email: {jasper.tredgold, jan.grant, nikki.rogers}@bristol.ac.uk.
- **Systems Developer** (RTS): Christian Fernau [reporting to Technical Manager], 0.25-1.0fte (from 1 Jan 2005)
  Contact: OUCS, 13 Banbury Road Oxford, OX2 6NN. Email: christian.fernau@oucs.ox.ac.uk. Tel: 01865 283353.

The project **management board** will comprise: Paul Jeffreys, Michael Fraser, Jasper Tredgold (Bristol) and Lyn Norris (Eduserv). The board will approve any changes to the project plan prior to submission to the JISC and will be responsible for providing overall direction to the project and resolving any issues referred to it by the project manager.

The project is in the initial stages of establishing an **advisory committee** comprising stakeholder representatives and technical expertise. The advisory committee will meet approximately four times during the course of the project.

Meetings (physical or virtual) comprising the key members of the project team will take place at regular intervals with the first having been organised for Sept 2004. Technical developers are expected to hold a virtual meeting once a week as necessary.

12.1 Training

The project has expressed support for a Programme-hosted Shibboleth implementation workshop. Other training needs (e.g. time management) will be met locally and a small amount of the budget has been set aside for staff development.

13. Programme Support

The project has identified the following areas of support:
- Facilitating communication and awareness-raising between projects and with international initiatives;
- Identifying and communicating information about common workpackages and outputs;
- Maintaining a register of collaborations, especially with external third parties.

14. Budget

See appendix A.

Detailed Project Planning

15. Workpackages

See appendix B

16. Evaluation Plan

16.1. Appointment of Evaluators

The SPIE project intends to appoint two evaluators for the duration of the project, one internal evaluator and one external evaluator. Their respective roles and duties will be similar although it is expected that one evaluator will have a background in computer science, and the other a perspective on user requirements. The internal evaluator will be drawn from Oxford or Bristol (though not from within OUCS or ILRT). The external evaluator will be drawn from a third institution.
In summary the evaluators will (depending on expertise) each:
- Comment on how successful the project is with regard to integration with the institution;
- Comment on the relationship of the project to broader JISC/national concerns;
- Assess the overall technical architecture and sample software outputs;

- Receive outputs and attend appropriate meetings;
- Submit biannual reports comprising answers to structured questions and free comment (reports will be published and submitted as part of the Project's own reporting procedures);
- Consult, as appropriate, with the Programme's own evaluation team.

Payment to the evaluators, including relevant expenses, will be on receipt of the annual reports.

16.2. Evaluation schedule

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
01/01/05	Successful deployment and customisation of Shibboleth implementation	Does it fulfil each scenario?	Structured walk-through.	Conforms with standard and expectations at each stage
01/12/04	Access control matrix	Is it sufficiently comprehensive?	Request for comments from data providers and institutional stakeholders.	Evidence of wide consultation and feedback
01/05/05	Authorisation service (usability)	Does it meet the user requirements?	User testing sessions, both desktop and lab-based.	User feedback indicating significant majority successfully accomplishing specific tasks.
01/10/05	Handle Service generalisation	Does it interoperate successfully?	Structured walk-through and user testing.	Conforms with standard and expectations at each stage.
01/05/05	Resource Manager Permissions Service	Does it meet the requirements of resource owners?	Pilot with sample resources and user testing/feedback sessions.	Approval from significant number and range of resource owners.
01/12/05	Integration of Shibboleth with WSRP-compliant frameworks	To what extent can a WSRP-compliant container be made Shibboleth-enabled?	Demonstrator and walkthrough.	Protocol/standards compliance.
01/05/06	Integration of Shibboleth with WSRP-compliant access management	Can Shibboleth integrate with AthensSSO within a WSRP-compliant framework?	Demonstrator and walkthrough.	Protocol/standards compliance.
01/04/05	Integration of Shibboleth with WSRP portlets	Is the model for Shibbolized WSRP-compliant portal implementations successful?	Independent verification through peer-review.	Results from external evaluator.
01/08/05	Integration of Shibboleth and eduPerson extension with WSRP user profiling	Can a portal user be permitted SSO access to shibbolized resources using an extended user profile?	Demonstrator and walkthrough.	Proven access via distributed demonstrators and fulfilment of user scenarios.
01/05/06	Integration of Shibboleth with uPortal/Webauth	Can this be proven in a real-world situation?	Piloting within OUCS Portal.	Proven integration and agreement to retain within portal.

Dissemination	What level of impact is/has the project made?	Feedback logs; follow-up contact after dissemination activities; news alerting services; logging take-up and deployment of outputs.	Effecting change within the institutions; effecting change within the Programme; effecting change within the national and international arenas.

17. Quality Assurance Plan

Timing	Compliance With	QA Method(s)	Evidence of Compliance
	Fitness for purpose	External evaluation against project objectives Usability testing.	Result of evaluation activities. Where relevant matching usability testing results against established user requirements. In principle agreement from stakeholders and relevant member of advisory committee that outputs comply with defined institutional requirements.
	Best practice for processes	Where practical following methods from the Extreme Programming Code relating to planning, designing, coding, and testing.	Audit trail via, e.g. IPR registry, version control system, request tracker, and internal communication logs.
	Adherence to specifications	Evaluation against agreed project plan and subsequent published user requirements analysis for certain workpackages.	Result of evaluation activities and verification by advisory committee.
	Adherence to standards	The project will comply with published open standards, and will use validators or reference implementations to test compliance.	Successful validation against published standards.
	Accessibility legislation	Accessibility will apply to user interfaces relating to the dissemination of project deliverables and the demonstrator systems. Web-based interfaces will follow good practice documented by the W3C Web Accessibility Initiative.	User testing and validation against published standards.

18. Dissemination Plan

Timing	Dissemination Activity	Audience	Purpose	Key Message
15/10/04	Launch of project web site	All	Raise initial awareness of project	About the project
01/10/04	SPIE@jiscmail.ac.uk email list	All	Announcing news and soliciting feedback	Keep updated about SPIE developments
	Project RSS feed	RSS aggregators (e.g. JISC communications)	Announcing news	Keep updated about SPIE developments
As arranged	Programme Meetings (posters or presentations)	JISC Core Middleware Projects / JISC	Raise awareness about the project and identify commonalities with other projects	This is what we're doing, any thoughts?
Dec 2004, July 2005, Jan 2006, July 2006	Presentations/reports as part of Advisory Committee meetings	Stakeholders	Updating and soliciting feedback/advice	Are we on the right track?
On-going	Conference attendance/presentations/ posters	Various	Seeking contacts/collaboration; awareness-raising; learning from others	About project; this is how we did it; we're here to learn
First one in Jan 2005	Institutional seminars	Selected stakeholders	Raise or maintain profile and understanding of project within institutions	Emphasise institutional nature of project; embedding and integration
01/08/06	Sourceforge project site	System administrators	Primary source for software outputs etc.	About project; download software; seek support

19. Exit/Sustainability Plan

Project Outputs	Action for Take-up & Embedding	Action for Exit
Reports	Combination of broad and targetted dissemination. Selected reports may make recommendations relating to further research, development or funding. These will be communicated to the relevant stakeholder bodies.	Reports will be delivered to JISC for disseminating via jisc.ac.uk. The project web site will continue to exist for at least three years beyond the end of the project.
Software	Software will be designed and documented to enable re-deployment and re-development. It is expected to release the software outputs under an OSS licence via a Sourceforge project. The Project may also consider organising a series of developer workshops to assist in take-up and reuse. Throughout the course of the Project a watching brief will be maintained for related activities which may benefit from collaboration on, or reuse of, the outputs.	Software and documentation wil be bundled together with source code and disseminated via Sourceforge or equivalent. CVS and relevant supporting content or infrastructure will also be made available.

Demonstrator	The project will maintain a demonstrator to which will be added specific functionality during the course of the project. Certain workpackages include usability testing. It is likely that the demonstrator will be widely disseminated and used as a showcase for the project, especially within stakeholder institutions.	As far as is technically and legally possible the demonstrator will continue to be made available beyond the end of the project.
Knowledge	The Project's deliverables include a number of reports. The Project team will participate in various meetings and events, including the giving o presentations and the writing of articles. During the course of the project regular meetings and cross-working will ensure internal dissemination of knowledge. Members of the Project are likely to be contributing to other relevant RTS activities. In the later stages of the project, members of the team will lead or participate in seeking resources for related projects.	RTS policy is to retain staff and re-deploy amongst one or more projects of interest. By not employing staff on short-term contracts we aim to build expertise and knowledge in certain strategic areas.

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
Applications and technical resources identified in section 4 above.	Standards-compliant software components with the potential to be integrated with institutional/national access management/portal systems.	Release under an Open Source licence; make available via Sourceforge or equivalent; encourage a community of early adopters.	Agree Open Source licence. Publicise outputs within relevant communities.

Appendix A. Project Budget

[deleted for online version]

Appendix B: Project Workpackages

WORKPACKAGES	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
1: Project Management		▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
2: Deployment of Shibboleth				▓	▓	▓	▓	▓	▓																			
3: Access Control Survey					▓	▓	▓	▓																				
4: Authorisation Service								▓	▓	▓	▓	▓	▓										▓	▓				
5: Handle Service								▓	▓	▓	▓	▓	▓			▓	▓	▓										
6: Permissions Service								▓	▓	▓	▓	▓	▓										▓	▓				
7: WSRP Frameworks				▓	▓	▓	▓																					
8: WSRP AMS						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
9: WSRP Portlets								▓	▓	▓	▓	▓	▓	▓	▓													
10: WSRP User Profiling				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓											
11: Webauth/uPortal						▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓			
12: User Involvement					▓	▓	▓					▓	▓	▓	▓	▓	▓									▓	▓	
13: Evaluation											▓					▓							▓					▓
14: Dissemination		▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓

Project start date: *01-07-2004*

Project completion date: *30-09-2006*

Duration: 27 months

Workpackage and activity	Earliest start date	Latest completion date	Outputs	Milestone	Responsibility
WORKPACKAGE 1: Project Management **Objective:** To ensure overall co-ordination of the project, line management arrangements, and meet reporting and other requirements of the funding body.	2004-07-01	2006-09-30			Oxford
1. Develop project plan			**Project Plan**	**1**	MF/MN
2. Develop and maintain project web site			Web site		MF/MN/FQP
3. Establish advisory committee			First meeting scheduled for Dec/Jan		MF
4. Recruit/allocate and manage staff and consultants					MF/MN/FQP
5. Report to funding body as required					MN
6. Develop consortium agreement			Consortium agreement		MF
7. Establish development environment			CVS and associated components		FQP
WORKPACKAGE 2: Deployment of Shibboleth Reference Implementation **Objective:** To install Shibboleth reference implementation; customising it to interact with relevant authorisation schemes	2004-09-01	2005-02-28			Oxford
8. Shibboleth implementation running (default)					FQP/CF
9. Customisation (see WP 11)					CF
10. Interact with Eduserv WAYF service					FQP/CF

WORKPACKAGE 3: Access Control Policy Survey **Objective:** To identify and categorise institutional protected resources and develop overall institutional authentication/authorisation policy	2004-10-15	2005-01-31			Oxford
11. Receive relevant data from DCOCE Project					MN
12. Develop and refine categories and attribute types					MN/FQP
13. Undertake additional survey of a subset of resources					Ext
14. Analyse and present results			**Report**		Ext
15. Publish proposals for institutional policy			**Proposal document**	**2**	MN
WORKPACKAGE 4: Authorisation Service: Attribute Authority Enhancement **Objective:** To implement and deploy a local web-based authorisation service to enable users to manage attribute release policies.	2005-01-01 2006-04-01	2005-06-31 2005-06-31			Oxford
16. Design and configure LDAP schema					FQP/CF
17. Defining and agreeing users, roles, resources and attributes					FQP/CF
18. Develop functionality to manage LDAP-based Attribute Release Policies					CF
19. Deploying functionality as Web-based user interfaces			Web-based authorisation service		FQP/CF
20. Deploying functionality as Web Services			Web-based authorisation service together with API/Web Services interfaces		CF
21. Publish report on best practice to achieve interoperability			**Report**		FQP/CF
WORKPACKAGE 5: Handle Service Generalization **Objective:** To integrate the Handle Service with the relevant institutional authentication/authorisation systems	2005-01-01	2005-12-31			Oxford

22. Identify and abstract common points of interactions between HS and AMS					FQP/CF
23. Develop bridges between the HS and legacy AMSs (e.g. Yale CAS, Stanford Webauth, AthensSSO)			Reusable and customisable **software** components		CF
24. Publish report on integration and customisation			**Report**		FQP/CF
WORKPACKAGE 6: Permissions Service: Resource Manager Enhancement and Optimization **Objective:** To implement locally an institutional permissions service as an enhancement of a resource manager.	2005-01-01 2006-04-01	2005-06-01 2006-06-31			Oxford
25. Deploy Permis engine					FQP/CF
26. Deploying functionality as Web-based UIs			Web-based permissions service		FQP/CF
Deploying functionality as Web Services			Web-based permissions service together with API/Web Services		CF
27. Publish report on best practice to achieve interoperability			**Report**	**3**	FQP/CF
WORKPACKAGE 7: Integrate Shibboleth with WSRP-compliant Portal Frameworks **Objective:** To investigate the limitations of WSRP with regard to access management and develop working models for the Shibboleth-enabling of a WSRP-compliant client and/or container.	2004-09-24	2005-03-31			Bristol
28. Initial feasibility report: Outlining the standards involved. Establishment of sample scenarios. Discussion of options and potential strategies to satisfy the various scenarios.			**Report**		JG
29. Initial implementation of Shibbolised WSRP client, demonstration.			**Demonstrator** of WSRP producer interaction with shibbolised consumer.		JG

	2004-11-01	2006-06-30			Oxford
WORKPACKAGE 8: Integrate Shibboleth with WSRP-compliant access management **Objective:** To enhance the SPP AM package to make it Shibboleth-aware and WSRP-compliant.				**6**	
30. Extend AthensSSO to be Shibboleth-aware					Eduserv/Oxford
31. Extend SPP AM to be Shibboleth-aware			Resuable **software** components for WPs 4-6 etc		FQP/CF
32. Investigate extending Shibboleth for non-http access			**Prototype and Report**		FQP/CF
33. Publish workpackage summary report			**Report**		FQP/CF
	2005-04-01	2005-09-01			Bristol
WORKPACKAGE 9: Integrate Shibboleth with WSRP-compliant portlets **Objective:** To develop a Shibbolized model for WSRP-compliant portal implementations where the handling of multiple user credentials for access to distributed resources is necessary.				**4**	
34. Extend SPP base portlet for use within a WSRP-compliant container; demonstrate this using the SPP cross-search portlet.			Enhanced cross-search package		JG
35. Investigate WSRP sessions for the passing of a locator for a web-based Shibbolized service to a WSRP provider.			Integration within demonstrator		JG
	2004-09-21	2005-09-01			Bristol
WORKPACKAGE 10: Integrate Shibboleth and eduPerson extension with WSRP-compliant user profiling **Objective:** To investigate how a portal user might be permitted access to Shibbolized resources based on extended user profile and demonstrate its potential for inter-institutional interactions.				**5**	
36. Extend SPP user profile package					JT/NR

37. Review relevant work elsewhere on Shibboleth's ability to pass on additional attributes			**Report**		JT/NR
38. Integrate within distributed demonstrators			Proof of concept through distributed portal **demonstrators**		JT/NR
39. Publish report on approach as potential model for UK HE/FE			**Report**	**4**	JT/NR
WORKPACKAGE 11: Integrate Shibboleth within a uPortal/Webauth architecture **Objective:** To extend Standford Webauth to be Shibboleth-aware	2005-01-01	2006-06-30		**7**	Oxford
40. Investigate applicability of Shibboleth Identity Proxy proposal					FQP/CF
41. Pilot implementation of proposal (if appropriate)					CF
42. Enhance uPortal AM package			Reusable uPortal AM **software** package		FQP/CF
43. Report on Shibboleth-Webauth interoperability			**Report**		FQP/CF
WORKPACKAGE 12: User Involvement **Objective:** To identify and formulate user requirements; to test for and ensure systems usability	2004-10-01	2006-08-31			Oxford
44. Undertake user requirements analysis for WP 4			**Report**		Ext
45. Undertake user requirements analysis for WP 6			**Report**		Ext
46. Manage usability testing and reporting for WP 4			**Report**		Ext
47. Manage usability testing and reporting for WP 6			**Report**		Ext
48. Manage usability testing and reporting for WP 10			**Report**		Ext
WORKPACKAGE 13: Evaluation **Objective:** To contribute to the formative evaluation of the project	2004-10-01	2006-08-31			Oxford
49. Refine evaluation plan					
50. Appoint external/internal evaluators					

51. Submission of biannual report #1			**Biannual external evaluators' report**		Ext
52. Submission of biannual report #2			**Biannual external evaluators' report**		Ext
53. Submission of biannual report #3			**Biannual external evaluators' report**		Ext
54. Submission of biannual report #4			**Biannual external evaluators' report**		Ext
WORKPACKAGE 14: Dissemination **Objective:** To disseminate deliverables of the Project.	2004-07-01	2006-09-30			Oxford/Bristol
55. To develop web site					MN
56. Refine dissemination and communications plan					MF/MN
57. Establish Sourceforge repository or similar for software outputs					FQP

Members of Project Team:

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