



PROJECT BUSINESS CASE (PBC)

For projects > £100K or projects requiring University capital funding.

PART ONE - To be completed by the project user representative with advice from Finance and UED. Additional sheets may be inserted.	
1. Project Name	Core User Directory Service Implementation Project
2. Project Reference (UED/Dept)	
3. Sponsoring Department	OUCS
4. Division	ASUC
5. Project User Representative	Name: Dr Stuart Lee
	Tel: 283403
	Fax: 273275
	Email: stuart.lee@oucs.ox.ac.uk

6. Project Type ✓ (Please tick as required)	<input type="checkbox"/>	
	<input type="checkbox"/>	
	<input checked="" type="checkbox"/>	Capital: Other
	<input type="checkbox"/>	
7. Project Activity (In percentages)	Research:	33 %
	Teaching:	33 %
	Other:	33 %
8. Proposed Start/End Date	Start: 1 Jan 2010	End: 31 Jun 2011
9. Estimated Total Project Costs	£ 232,000	

10. Project Outline - Explain what is happening, whether this is part of a larger project, the outcome of the project, the alternative options considered and the result of doing nothing. Identify the non-financial benefits, the key project sensitivities and the space affected (use a separate sheet if required).

Introduction

The Core User Directory (CUD) implementation project will initiate a CUD Service for the collegiate University, building on the CUD Pilot Project, successfully completed in July 2009, the final report of which provides further relevant information (see <http://www.ict.ox.ac.uk/odit/projects/coreuser/Pilot/finalReport.xml>). The CUD Service aims to provide a directory of authoritative information about people who have a relationship with the University. The CUD does this through aggregating and reconciling agreed core data attributes from a variety of data systems, both central and local; generating a unique and persistent identifier for any given person record which in turn is used by participating provider and client systems; and by providing a series of standards-based interfaces that enable both the timely retrieval of data and its lookup and reuse by client systems.

The CUD implementation project will set in place a CUD Service with three main components:

1. a *data harvesting service* (bringing in data from both core University systems (e.g. HR, OSS, Payroll, University Card, OUCS Registration, Alumni) and local systems (e.g. College tutorial systems, OULS readers, department affiliations));
2. a *reconciliation service* (enabling matches to be made between personal records in distinct data stores and data inconsistencies to be identified);
3. a *data provision service* (providing a minimal set of authoritative personal data so that, for example,

decisions may be made on the basis of authoritative, documented attributes);

4. a *foreign key service with attribute release policies* (providing facilities for data store owners to maintain data integrity and control access to their data by others);

Whilst the above systems are the focal point of the CUD Service, the success of the service itself is dependent on the implementation of two further aspects that will be included within the overall project:

- the development of a *communications strategy* to encourage take-up and promote exploitation of the service across the collegiate university (including both central and local services);
- the establishment of a *management committee* to set and oversee a strategy for data release and management policies (as part of the University's overall Information Strategy).

The outcome from the project will be a fully operational and supported service, managed by OUCS on behalf of the collegiate University, with policy and strategic direction set by a service management committee comprising senior representatives from across the collegiate University (divisions, services, UAS, colleges).

Use Cases

The CUD Service is primarily an enabling service. By supplying authoritative data about individuals, it provides units and central services with a clear level of assurance about the authority of any given data attribute. Having authoritative data with a documented provenance reduces data duplication, increases data consistency and so enables more effective services to be provided to end-users, at all stages in the relationship an individual might have with the University (admissions, staff recruitment and retention, research, teaching, and learning; alumni etc).

The CUD Pilot Project actively sought real-life use cases from different parts of the University relating to existing problems that a CUD service should be able to address. Example use cases that formed part of the pilot CUD project included:

- Central registration of multiple affiliations (with authoritative status information);
- Automated updating of personnel status changes across systems;
- Real or near real-time updating of database of Congregation membership from Payroll system etc.
- Automated registering of new students and staff details in local tutorial/seminar booking system (and subsequent updating);
- Efficient validation of alumni status for issuing of OULS reader cards (and tracking any subsequent change of status);
- Automated updating of the membership of a number of key college email lists (e.g. 'graduates') using email addresses allocated by OUCS and status assigned by college;
- Reconciling of telephone and email data for a single contact search and/or internal address book.

A CUD Service is essential to meet the identity and access management requirements of the University. These requirements are increasingly complex. By way of an example, it is worth noting that OUCS, in collaboration with BSP, took advantage of the processes and systems developed for the pilot CUD in order to reconcile data from the Oracle Student Systems with data from the University Card and OUCS Registration databases, in order to ensure that students with the offer of a place at the University might use the Student System Self-Registration facility with Oxford Single Sign-on credentials.

Result of doing nothing

In the absence of this service, the University would have to develop from scratch several ad hoc ways of reconciling data about the same individual held in disparate data stores; if no such service is developed key administrative tasks will become increasingly difficult to fulfil. The evaluation of the Pilot Project noted such activities as the return of accurate data to HESA; meeting the requirements of the Research Excellence Framework; managing access to different systems as affiliations and status changes; ensuring that data models serve the academic model of the collegiate University – whether with respect to teaching, learning or research.

Outline workplan

The project comprises the following workpackages:

1. Establishment of the CUD Management Committee or equivalent body.
2. Development of communications strategy, including engagement with early adopter data providers and consumers.
3. Prioritisation of essential service functionality for development, not offered via the CUD pilot (gap analysis).
4. Development of policies and service-level descriptions.
5. Migration of pilot CUD to fully supported and resilient system platform.
6. Establishing data feeds with priority central and local data systems.
7. Programme of technical enhancements (derived from (2) above), including interoperability with existing systems.
8. Provision of help desk and training support.
9. Agreement for iterative CUD development programme within overall service scope.

Schedule

The project will commence in January 2010 and run for 18 months. The service implementation is planned to be on an iterative basis with a basic, usable service available by 1 Sept 2010, and further data feeds and functionality released according to the agreed CUD development programme.

Indicative costs

Figures are given for staff and non-staff costs for an 18 month project starting 1 Jan 2010.

1. Staff costs:

- i. Project Management and Communications (0.5 FTE, Grade 8), £42,260
- ii. Data Management (1 FTE, Grade 8), £84,511

iii. Systems Development (1 FTE, Grade 8), £84,511

Total Staff costs: £211,282

2. Non-staff costs

i. Hardware costs: £20,400

3. Total Project: £231,682

It is intended that the systems development resource should include reasonable support to assist data providers in making whatever changes might be necessary to fully participate in the CUD service (including e.g. documented standards and interfaces). Any significant development effort on the part of data providers is not included within the CUD project budget and would need to be met from existing service development budgets. OUCS would collaborate with BSP, for example, to help ensure interoperability between the CUD and systems underpinning UAS services and to help define the scope of any additional development work.

Annual recurrent costs, after completion of the project

It is anticipated that the CUD Service will evolve as new data providers become available (e.g. new HR system). The Pilot Project demonstrated that a significant proportion of the activity associated with a CUD service is likely to include liaison with data providers and consumers; ensuring data processed by the CUD remains accurate, current and compliant with agreed standards; providing training and support documentation; bringing matters to, and supporting, the data management committee. The proposed Data Manager post for the service is intended to fulfil this role. The ongoing technical support and development of the CUD Service, especially as new data providers come online, will require an additional 0.5FTE systems support role.

Annual costs have been averaged out over 4-5 years.

1 Staff costs (5 years):

- Data Manager (1 FTE Grade 8) £61,878
- Systems Support (0.5 FTE, Grade 8) £30,941

2. Hardware and maintenance (4 years): £5,310

11. Strategic Context - Provide a description including a statement of need, the strategic objectives of the project, and the fit with the division's academic strategy. Explain how this project will impact the RAE rating and academic reputation. Please state the current RAE rating.

The University has a highly distributed nature with many agencies and hence many data stores – even within the same division (e.g. UAS) – dealing with information that relates to the same individual. This is a strength in that it permits focussed development responding to particular specialist needs; it is also a weakness in that it often leads to wasteful duplication of effort, or worse inconsistency and uncertainty, e.g. as to which of many possible data sources is authoritative for a given data attribute. Recognising this, and as a part of the requirements identified in the ICT Strategic Plan, the CUD pilot project was set up to investigate the

feasibility of providing a single access point to provide both an authoritative minimal set of personal data and a reliable means of linking it with distributed data sources across the collegiate university. The pilot gained wide support from key players, including academic divisions, Library Services and colleges as well as major central services, and demonstrated that a CUD was technically feasible, highly usable, and responded to a real need. The evaluation carried out at the conclusion of the project identified over a dozen use cases which benefited directly from its availability. The technology developed for the pilot CUD also facilitated the early roll out of student credentials for the 2009 intake, which would otherwise have required extensive additional development work by Student Administration or OUCS. Taking this forward as a consolidated service is seen as crucial to the development of the University's information strategy.

The development of the CUD Service is consistent with the OUCS five year plan. As a result of the ICT Strategy, and discussions at the SFWG meetings, OUCS identified key projects that will directly enhance the services offered to staff and students, one of which is the development of a core user identity scheme, as part of a wider initiative to tackle identity management issues and improve access management services for the University (see <http://www.oucs.ox.ac.uk/internal/5yr/2009-2014.xml.ID=challenges#body.1_div.3_div.8>).

12. Sources of Capital Funding - Please attach proof of confirmed external funding. NB: If University capital funding is required, please indicate if funds are provided as Investment (I), Underwriting (U) or Loan (L)

Source	Predicted £000s	Confirmed £000s
University capital funding (I)	232	
Total £	232	0

13. Sources of Recurrent Funding (average pa) - Please attach proof of recurrent confirmed external funding.

Source	Predicted £000s	Confirmed £000s
	98	
Total £	98	0

14. Risk Assessment - Highlight the key risks and uncertainties for the project as a whole. Attach the feasibility risk assessment if applicable.

- Stakeholder and user expectations may not be adequately managed;
- The project may be unsuccessful in persuading data providers to release data to the CUD;
- The project may be unsuccessful in persuading data managers to source data via the CUD;
- There may be problems in recruiting or seconding suitably qualified staff.

In mitigation of these factors we note that

- The proposed data management committee together with the project's communication and liaison

activities should ensure a clear understanding of the project's scope;

- OUCS has a core of in-house expertise and access to external consultancy which could be used to train suitable staff;
- By embedding the service within the emerging University Information Strategy, we would hope to ensure high level support for its use.

15. Financial Analysis	Please attach QS report and/or Feasibility Study cost report if available
(£000's)	
Capital Costs Staff	£ 212
Capital Costs Equipment	£ 20
Total Capital Costs	£232
University Capital Funding required	£ 232

Additional Recurrent Costs Average pa.	£ 98
Additional Recurrent Income Average pa	£
Additional University Recurrent Funding Required Average p.a	£ 98

Net Present Value	£
Capital Building Cost per square metre	£
Percentage VAT Recovery (to be confirmed by University VAT Advisor)	%

The signatures below signify the Department/Division's agreement to proceed with this project.

Project User Representative:	Signed	Date
Head of Department	Signed	Date
Head of Division:	Signed	Date
Director of Development: (where applicable)	Signed	Date
CSG Approval (>£100K or any project requiring University Capital Funding)		
Agenda Reference:	Signed by Secretary of CSG	Date
Minute Reference:		
PRAC Approval (>£1m)		
Agenda Reference:	Signed by Secretary of PRAC	Date
Minute Reference:		