

Project Acronym: i-Borrow
 Version: 1.0
 Contact: Phil Poole, 01227 782247
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Project Document Cover Sheet

Project Information			
Project Acronym	i-Borrow		
Project Title	-		
Start Date	1 October 2008	End Date	31 March 2010
Lead Institution	Canterbury Christ Church University		
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Partner Institutions	-		
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JISC Project Plan

Overview of Project

1. Background

Canterbury Christ Church University supports 14,000 students and 1,100 staff. Its growth in the last 10 years combined with the change in the use of technology to operate and support the business has been dramatic. Augustine House is a new £35m Library and Learning Centre which will open in central Canterbury in September 2009.

The University intends Augustine House to be a 'state of the art Library and Learning Centre' featuring technology-rich flexible and adaptable learning spaces to meet the needs of the University's diverse student groups. The £35m project to develop Augustine House is the largest single development that the University has ever embarked upon. It has not done so without undertaking substantial research. However, it quickly became clear that some of the questions about students' activities within learning centres, which the planning process raised, did not find authoritative answers. I-Borrow is an opportunity to understand how students use mobile versus fixed computing hardware within a large learning space.

2. Aims and Objectives

The i-Borrow project will make 200 thin-client notebook computers available for self-service loan for use within the centre. Application servers and associated software and licenses will provide applications to wireless clients. Location-aware Wi-Fi capability will enable tracking of these wireless clients. The project will enable us to collect a range of empirical information relating to how wireless and mobile technologies are being used within a learning centre and how a diverse and heterogeneous student corpus (incorporating mature, part-time, work-based cohorts) engage and interact with different spaces and technologies as part of their learning within the Centre. The data will support intelligent building management and control. It will demonstrate the use of thin client technology in loan-laptop provision and the effectiveness of location-awareness systems to provide temporal and special data. Overlaid with additional data (group/cohort, application use and group activity) the project will provide primary data on the use of laptops in learning spaces. Ultimately, it will enable us to develop a better understanding of how students use electronic and virtual resources both as individuals and in groups

Goals	Objectives
i-Borrow will enable the University to offer thin-client notebooks can with "no-fuss" access to a full range of software and learning resources	<ul style="list-style-type: none">• Students will be able to borrow a thin-client notebook PC for use with the Augustine House Learning Centre.• From the thin-client PC students will be able to access the Internet, and standard University networked applications.
The project will provide a large-scale demonstrator of the use of tracking software and location-aware	<ul style="list-style-type: none">• Exploiting knowledge gained by other UK HEIs participating in the JANET(UK) Mobile IP programme of trials the University will select a method of geo-locating Wi-Fi clients within the Centre.

technology to aid the configuration of facilities within flexible learning spaces	<ul style="list-style-type: none"> • Deploy and test the geo-location tool. • Develop recording systems to gather data of spatial, temporal and type of use.
i-Borrow will provide an insight into the way students use flexible learning spaces.	<ul style="list-style-type: none"> • Tracking software will provide an overview of demographic related when and where students are working on in the Learning Centre (when using IT). • Case studies, in association with tutor champions explore how pedagogic strategies influence student learning activity within AH
i-Borrow will provide the sector with evaluation and findings from the project	<ul style="list-style-type: none"> • The sector will be invited to events to see i-Borrow in action and critically discuss its potential. • An evaluation of user views will provide an insight to the benefits, issues and usages of large-scale use of thin-client notebooks • An implementation report will outline the technical aspects of the design, configuration, roll-out and management of the service • A project report will detail evaluation findings, issues, benefits and lessons learned.

3. Overall Approach

Strategy and Structure

Initial work will involve evaluation of thin-client technology and location tracking systems. Evidence will inform the purchase of hardware and software leading to a small-scale pilot of both technologies in existing spaces within the university. The deployment of laptops and tracking system in the new learning centre will provide management data such as user footprint, patterns of use and user satisfaction. The data from location tracking combined with other information on users and traditional data gathering will be used to answer demographic and pedagogic questions about students' use of technology within the learning spaces.

The project will have four main strands overseen by specific members of the project team:

1. The service roll-out. Thin-client notebooks able to support web browsing, office applications and access to selected University IT resources.
2. Evaluation, purchase and subsequent deployment of location awareness software
3. Analysis of the data emerging from location tracking software and evidence from staff and students on their use of the laptops, collected using standards research techniques. (Management and pedagogic reports)
4. The evaluation of the project. (Evaluation report)

Scope

The project will deliver a computing service to students and as such is primarily an internal development project of the University and will be delivered by computing service and learning development staff.

However, the University recognises the potential interest of suppliers in large-scale demonstrators of thin-client systems and location-awareness technology and will investigate the potential for collaboration (and the potential costs and benefits of this as part of the procurement exercise.

The project has established a management group which has already identified as a prime objective the need to ensure the broad involvement of a wider group of stakeholders within the organisation, including:

- Students
- Academic Staff
- Researchers in education and learning development
- Service staff outside those directly involved in delivering the project

Although the project will deliver a platform offering IT facilities to users, the project's scope is restricted to the delivery of the platform itself: i.e. the thin-client infrastructure and associated location-awareness technologies.

Critical Success Factors

1. The project will provide a large number of thin-client notebooks for no-fuss loan.
2. Thin client delivers a suite of applications which meet students' needs and provides a flexible option to fixed PCs (reported student satisfaction)
3. Thin-client laptops provide a manageable software environment
4. Location awareness software provides a level of accuracy which establishes the student footprint to a level which is useful in providing management data, pedagogically useful data and through the use of accompanying software, a way of representing the data for a range of stakeholders.
5. Traditional research strategies usefully combine with location awareness data and provide relevant information for a range of stakeholders
6. Academic, support staff and students find the laptop resource stimulates a range of activities and learning configurations within the Centre
7. i-Borrow provides a pedagogic focus at AH and encourages innovative learning and teaching approaches
8. The profile of CCCU and the Learning and Information Services Directorate (LIS) is enhanced by engagement in the project and its dissemination to the sector
9. Project staff gain professional development and personal satisfaction from engagement in the project

Project Assumptions

Project Assumption
Human resource model is relatively stable for the duration of the project
The University Management recognises the significance of the project and prioritises it as outlined in the bid
Virtualisation can deliver a useful suite of applications that meet the majority of students needs within a mobile context in a learning centre

Allocated capital budget delivers core elements of the bid
Project specification remains unchanged
Effective communications mechanisms are established with all staff
No major failure in the IT infrastructure
Augustine House is completed as per existing plan
Location tracking systems perform as anticipated
Data from location and tracking systems provides manageable data for analysis
Students regard the i-Borrow laptops as a normal resource within the centre which provide an alternative to fixed PCs
Students, given suitable reassurance, are willing to participate in the project by using the laptops and providing modest feedback in response to data gathering activity
Student Union officers/ student body are supportive of the project

4. Project Outputs

Stakeholder Communications

Stakeholders	Expected Communications	Frequency	Media
Students, academic staff and other users of Augustine House	Student contribution to project planning Working Group membership (students) Publicity Signage in AH Laptops signal project engagement	Periodic meetings September- Jan 2009	Meetings Signage Flyers Help-desk
The Computing Service	Reporting progress through internal communication in Dept	On-going	Written, verbal, website
The Learning and Teaching Enhancement Unit	Reporting progress through Internal communication in Dept	On-going	Written, verbal, website
Library and Learning Services	Reporting progress through Internal communication in Dept	On-going	Written, verbal, website
The Project Manager for the Augustine House Development	Project Management Group Membership	Termly	
The Project Management Group	Membership	Termly	Face to face, Bb, email
Integrated Help-desk in Centre	Engagement of manager in working	Monthly	

Stakeholders	Expected Communications	Frequency	Media
	group		
JISC	Periodic reporting as contracted	As outlined in Milestones and Deliverables	Written reports e-mail
Other institutions in the HE sector <ul style="list-style-type: none"> • SMT • Librarians • Learning Technologist • Architects • Estates managers • Directors and managers of Computing Services and technical specialists 	See dissemination strategy	As outlined in Milestones and Deliverables	Technical Reports Web sites Academic papers Presentation at events Open days Consultancy

5. Project Outcomes

The University will gain a picture of when, where and to an extent, how students make use of laptops in an open plan learning centre. The University will be able to compare, contrast and report on this use amongst a variety of student groups - e.g. full time/part-time, gender, 18-21/mature.

This initial picture will direct the University towards potential further qualitative research on student use of the Augustine House Learning Centre.

We will have deployed a large number of freely available laptops which can be used by students in a variety of ways to enhance their learning in the new building. We will also show others in the sector if this is what students actually want, or if fixed PCs at convenient locations are preferred.

6. Stakeholder Analysis

The stakeholders in the project are

- Students, academic staff and other users of the Library and Learning Centre
- The Computing Service
- The Learning and Teaching Enhancement Unit
- The Head of Library and Learning Resources
- The Project manager for the Augustine House Development
- The Project Management Group
- PVC Student Services
- JISC
- Other institutions in the HE sector

The institutional project sponsor is Dr Keith Gwilym, Pro-Vice Chancellor for Learning and Quality, who chairs the Project Management Group.

7. Risk Analysis

Risk	Prob'y 1-5	Impact 1-5	Score	Mitigation actions to manage or control risk
Staffing availability	1	4	4	All staff identified already and secondment agreed. No recruitment need.
Loss of key staff	3	5	15	Other staff involved in project as much as possible. If it became necessary we would employ contract / consultant staff to fill vacancies if anyone left
Late delivery of Augustine House	2	3	6	The Project Management Group involves the AH Project Manager and is well positioned to gain early access and to plan for any alterations required. There is some leeway in the timing of full implementation data gathering phase.
Limited experience of in-house staff in certain key technology / pedagogy aspects of the project	4	4	16	Two external project consultants with relevant experience (see staff section) have agreed to participate in the project. We will use existing expertise in the sector as the starting point and establish ongoing working relationships with other developers in HE. We will work closely with software and hardware providers to develop solutions.
Emerging technology	4	2	8	The project envisages the use of currently available technology. Better or cheaper products may become available, not known about at the time of bidding. It is accepted that the potential of any new technology may not be tested by this project, but the value of the project is as a demonstrator and for its pedagogic insights.
Security of equipment	3	3	9	The location tracking system will be enhanced by passive security tagging to sound alarms if the equipment is about to leave the secure area. The thin-client hardware will have little value outside of the building and this fact will be well signposted for users.
Ethical concerns about the use of location-sensing and monitoring of movements and work done by students	4	3	12	Awareness of the issue: this possibility poses an interesting challenge but also the opportunity of a worthwhile study in its own right. Ethical clearance will be obtained as required for the Research work package. Students will be engaged from the outset in discussions about the outcomes and the role of students in supporting changes in practice with the resource provision at CCCU.

8. Standards

Name of standard or specification	Version	Notes
Cisco location tracking		All our wireless equipment is Cisco, and it is widely used in community. No open standard exists.
Citrix		This is also widely used and again there are no open standards for virtualisation

[NB: these are the expected methods of deployment but testing during the pilot phase may mean other methods prove more viable, either technically or economically]

9. Technical Development

The project will sit within the University's thin-client / virtualisation strategy that will be deployed over the next few years. The University's Computing Service already has a model for the provision of fixed desktop computers that include a large software portfolio, such that any student can logon anywhere and access the applications that are relevant to their learning needs. Support for the user's own device is now embedded within the University using EduRoam, a sector-wide infrastructure development. However, this does not give full access to the University software portfolio, creating a barrier to the seamless integration of ICT.

Application virtualisation allows applications to be delivered to any device, based on the user rather than the device. It is already used within CCCU for delivery of key corporate information systems (such as the student record system) and a broad range of educational software. Application virtualisation provides considerably more opportunities within the HE environment both in terms of spreading the net of accessibility and management of the software portfolio. However, within Augustine House its primary benefit will be to allow delivery a portfolio of University software to student portable loan computers.

The types of devices to be deployed are summarised in the table below.

Function	Number	Purpose	Notes
OPAC terminals	25	Delivery of library catalogue and possibly some e-journals	All-in-one PC running either in locked down kiosk mode or virtual image (these are identical to student desktop hardware to allow future variation of ratio between types)
Student desktop	100-150	Open access for students	All-in-one PC, with basic software image installed on disk, and specialised software deployed via virtualisation
Staff desktops	150	Flexible functionality for staff	Standard PC with locked down image, all staff with mobile profile. Future non-standard software deployed via virtual route.
i-Borrow notebooks	200	Walk-up loans	Pick up, login and get a basic software image (Office plus Web as minimum). Location aware, position tracked.

One technical challenge may be the authentication via EduRoam, as thin-client devices are not yet a common platform. During the pilot phase, several different types/makes of thin-client devices will be tested and evaluated to see how they can be configured.

10. Intellectual Property Rights

There are no IPR issues anticipated. Arrangements are in hand to ensure that project consultants assign all rights in their work to the University.

Project Resources

11. Project Partners

There are no project partners.

There are two external project consultants contracted to the project:

Prof Betty Collis is a specialist in the application of technology for strategy, learning and change in educational organisations and corporate training. She now works as a consultant but was a member of the Faculty of Education at the University of Victoria, Canada, from 1976-1988 and a member of the Faculty of Educational Science and Technology at the University of Twente in the Netherlands.. At the University of Twente she was head of the research team "Technology for Strategy, Learning and Change". A prolific author, with approximately 700 scientific publications, she is a frequent conference speaker (with close to 700 presentations including over 50 keynotes in more than 35 countries), and currently works with a number of universities and (inter)national organisations as an advisor. In 2007-2008 was a Senior Consultant with the JISC/HEA Pathfinder project. She has served as an external evaluator for more than 40 projects involving technology and institutional strategy.

Adrian Wheal is a technology and management consultant whose main business is advising clients in HE, commerce and health on the feasibility and management of complex or cutting-edge computing and technology projects. A network specialist and an exponent of wireless networking, he has headed a number of HEFCE and JISC projects in technology and e-learning including an early JISC JTAP project to investigate wireless networking (Dearden, 1997)¹. He is a Chartered Engineer, Fellow of the British Computer Society and holds a visiting Senior Fellowship at the University of Lincoln, where he was Director of Learning and Information Services until 2006.

12. Project Management

The University has evolved a two-level project management structure based on a Prince-2 methodology and which has been proven on similar Computing Services' projects, comprising a broadly-based Project Management Group with formal Prince-2 project responsibilities and a smaller, very hands-on Project Working Group.

The Project Management Group. Comprises project members, consultants, the Head of Library and Learning Resources and other key CCCU service managers and will be chaired by Dr Keith Gwilym, PVC. It has formal responsibility within CCCU for the delivery of the project. Its remit includes co-ordination within the University, progress and budget monitoring, resource allocation and oversight of the evaluation and dissemination activities. It is expected to meet at least once in every 3 month period, but will meet more frequently during the project inception stage. Members of this group will represent the project at JISC meetings and other project events.

The Project Working Group. Will be chaired by the joint project managers Phil Poole and Ian Ellery. It will be attended by the core project team and (when appropriate) the consultants. It reports to the Project Management Group. Its remit is to resolve day-to-day issues (including procurement and technical matters) that arise in the project and ensure the project team work effectively together.

JISC reporting will be the responsibility of Phil Poole based on information from all members of the project filtered through the Working Group and signed off by Management Group.

Project Role	Responsible individuals
Inception	Phil Poole Ian Ellery Betty Collis Adrian Wheal

¹ Dearden, J. (1997) JISC JTAP Report 14, "Wireless Networks", Available at <http://www.jisc.ac.uk/media/documents/programmes/jtap/jtap-014.pdf>

Project planning, management and evaluation	Project management team, internal and external evaluators
Research	Phil Poole Susan Westerman Lynne Graham-Matheson CS staff Betty Collis Adrian Wheal
Budget	Elizabeth Carr Claire Haines
Development and piloting: wireless location awareness	David Hayling Chris French
Development and piloting: thin client software and hardware	Geoff Kimmons David Carr
Deployment	Technical Teams above
Evaluation	Lynne Graham-Matheson (internal) Betty Collis (pedagogy) CS staff (technical) External evaluator
Dissemination	Phil Poole/ Ian Ellery Susan Westerman Technical Team Consultants

13. Programme Support

None.

14. Budget

See appendix A.

Detailed Project Planning

15. Workpackages

Detailed project plans with milestones and Gantt charts will be produced to cover all project phases. These will be agreed with the Working Group and monitored by the Project Management Group termly. Summary reports will be compiled by the Working group and presented to the Project Management Group at each termly meeting.

Any changes to phases of the project, as described in this document, will be reported through to the Project Management Team for consideration and recording. Any Change Requests will be documented (including initiator, reasons and a description of the change required) and evaluated in terms of its impact. The appropriate actions required to resolve the requested change can then be determined.

16. Evaluation Plan

Project evaluation will be directed by Prof Collis who will be part of the project team. She will oversee the development of a detailed evaluation strategy for each work package as well as for the overall project. An ongoing process/product-based approach to evaluation is envisaged. Formative feedback is useful to steer the progress of the project and the evaluation strategy attempts to provide opportunities for the team to monitor and respond to developments as they occur. Key evaluation questions will include

- What can be learned, for the institution as well as for the sector, from the technology decisions that are made?
- To what extent can benefits of the approach to the institution, to students, and to staff be demonstrated? In what ways is their measurement most efficient and reliable?
- What are the perceptions of learners toward the approach?
- What are unexpected outcomes and insights
- To what extent is the project proceeding as planned and what can be learned from any adaptations to the planning that occur??

An external evaluator will be appointed to provide an independent report on the project and the extent to which it achieves its aims.

17. Quality Plan

Output	Thin client notebooks				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
	Speed of access	Testing by teams other than developers	Usable by students	Project team	
	Wide enough software range	Signoff by students union	Notebooks used / feedback	Project team	

Output	Location aware wireless				
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
	Tracking data is accurate to agreed resolution	Testing and measuring before deployment	Data accuracy as required by research team	Technical team	

Responsibility for Quality Assurance lies formally with the Project Management Team. However, day-to-day responsibility is devolved to all project members, who have an individual and continuing responsibility. The external consultants will also be providing continuing advice to the project members and the Management Team.

18. Dissemination Plan

The project will engage with the wider HE community through

- JISC-sponsored activities, including the synthesis and benefits-realisation work funded through Call I
- Individual project members participation in community events, especially those concerned with:
 - learning spaces
 - the design of libraries and learning centres
 - location awareness technologies
 - thin-client deployments
- A University launch event/conference which will capitalise on the interest in Augustine House and exemplars of learning innovation. Discussions are in-hand with SCONUL and JISC Regional Support Officer to jointly sponsor the event, which will present architectural and technological aspects of the Library and Learning Centre alongside the research results on learner behaviour to be derived from this project.

Audience	Dissemination Activity	Purpose and Message	Timing	Examples
<ul style="list-style-type: none"> • Librarians • Learning Technologist • Architects. • Estates managers. 	Presentations at events related to learning spaces and libraries	Lessons from a large-scale exemplar: Environmental benefits and sustainability. Manageability	Throughout, but weighted towards the end of project	SCONUL Conference AUDE Conference
Directors and managers of Computing Services and technical specialists	Presentations at events related to thin-client and location-awareness	<ul style="list-style-type: none"> • Lessons from a large-scale exemplar • Manageability and cost savings 	Throughout, but weighted towards the end of project	<ul style="list-style-type: none"> • UCISA Management Conference, • Networkshop
Directors and managers of Computing Services and technical specialists	Technical briefing papers and case study	Lessons from a large-scale exemplar: manageability and cost savings	Throughout, but weighted towards the end of project	Briefings on <ul style="list-style-type: none"> • Thin-client notebooks • applications of location awareness
Potential collaborators	Involvement with education researchers and others interested in the project	The spatial and temporal data allows new insights into the ways students learn.	Throughout	Researchers in theory of learning, pedagogy and student behaviour

<ul style="list-style-type: none"> • Librarians • Educational developers • Learning Technologists • Architects. • Estates managers. • Directors and managers of Computing Services • Technical specialists 	CCCU/SCONUL conference and event to showcase Augustine House and the outcomes of the project	Showcase	End of project	
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19. Exit and Sustainability Plans

The development work will be completed within the project timescale and the University will adopt and provide ongoing maintenance and support of the equipment as part of the normal computing service provision. Virtualisation is part of the strategic plan for Computing Services and will thus continue to be developed based on the outcomes of i-Borrow. LTEU will look for further sources of funding for the research element of the project based on the outcomes which have emerged by March 2010. Project staff all have existing permanent contracts. There are therefore no significant sustainability issues anticipated.

Project Outputs	Action for Take-up & Embedding	Action for Exit

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
i-Borrow service in Augustine house	Equipment purchased and system deployed	Assuming success, then as the University Campus is redeveloped we will also look at whether i-Borrow can be deployed in other sites and buildings	Replacement cycle of hardware and to cover breakages (will be picked up via normal CCCU routes)

Appendixes

Appendix A. Project Budget

BUDGET			
Directly Incurred Staff	Apr 2008 - Mar 2009	Apr 2009 - Mar 2010	TOTAL £
Total Directly Incurred Staff 0(A)			
Non-Staff	Apr 2008 - Mar 2009	Apr 2009 - Mar 2010	TOTAL £
Travel and expenses	£2,000	£3,000	£5,000
Hardware/software	£30,000	£145,000	£175,000
Dissemination	£0	£5,000	£5,000
Evaluation	£0	£10,000	£10,000
Other (Project Consultants)	£7,500	£17,500	£25,000
Total Directly Incurred Non-Staff (B)	£39,500	£180,500	£220,000
Directly Incurred Total (A+B=C)(C)	39,500	180,500	220,000
Directly Allocated	April 08 - March 09	April 09 - March 10	TOTAL £
Staff	£	£	£
Project Managers 0.3 FTE			
Ian/Phil/			
Project Support 0.2FTE			
Technical Staff 2.0FTE			
Other	£	£	£
Directly Allocated Total (D)	£59,747	£137,164	£196,911
Estates at £5396 per FTE	£6,745	£14,030	£20,775
Indirect Costs (E) @ £42,943/FTE + 4.0 inflation	53,679	111,652	165,331
Total Project Cost C+D+E)	£152,926	£429,316	£603,017
Amount Requested from JISC	£100,000	£200,000	£300,000
Institutional Contributions			£303,017
	JISC 50% approx	CCCU 50% approx	Total 100%

Appendix B. Workpackages

Package:1	<i>Inception</i>
Scope:	Project Management Team liaise with the JISC project team to identify respective expectation on reporting and contribution to institutional and sector objectives. Liaison with consultants. Role of consultants detailed.
Dates/Duration:	October -November 2008 (2 months)
Deliverables:	Project Management Team and Project Working Group Meetings Project promoted internally to staff through relevant committees
Users/Locations:	Project inception will involve liaison between the i-Borrow Project Management Team and JISC liaison staff. Staff secondment begins

Package:2	<i>Project planning, management and evaluation</i>
Scope:	i- i-Borrow PID and project plan finalised. ii- Evaluators and evaluation strategy agreed iii- Teams agree responsibilities, timelines and milestones and project management strategy
Dates/Duration:	October 2008 – March 2010 (18 months)
Deliverables:	Staffing –roles and responsibilities agreed Project Plan and budget to JISC Project Initiation Document/Project Plan devised Roles and responsibilities and project communication mechanisms established Ethics approval sought and gained Evaluation plan agreed
Users/Locations:	Project and evaluation planning will be approved by the Project Managers in consultation with the Project Consultants and Working Group

Package: 3	<i>Project research</i>
Scope:	Research questions developed. Ethical approval sought in November 08 for pilot and in summer 09 for deployment phases.
Dates/Duration:	October 2008 – March 2010 (18 months)
Deliverables:	Data on student IT usage in current library environment gained in pilot phase. Proof-of-concept exercise in existing wireless enabled spaces Research reports on technical and pedagogic aspects of project made available to JISC and the sector
Users/Locations:	Project research staff (technical and pedagogic)

Package:4	<i>Development and piloting: wireless location awareness</i>
Scope:	Integration of tracking with thin-client device and data capture Location awareness system and tracking software evaluated and purchased. Controlled test of real-time location tracking - Pilot undertaken within constraints of current Wifi setup. Evaluation of technical and data issues surrounding location tracking.
Dates/Duration:	October 2008 – August 2009 (9 months)
Deliverables:	Procurement decision (December 2008)

	Pilot completed (March – June 2009) and tracking data gained Technical briefing paper Final configuration and installation plan for deployment Interim report on proof of concept produced (June 2009)
Users/Locations:	Work on evaluating systems, piloting and technical development will be conducted by Computing Services Project Officers

Package:5	<i>Development and piloting: thin client software and hardware</i>
Scope:	Configuration and deployment of devices with chosen virtualisation technology. Server(s) and 10 notebooks for pilot purchased. Pilot undertaken in the existing learning spaces, e.g. University Library space Profiles developed based on testing.
Dates/Duration:	October 2008 – August 2009 (9 months)
Deliverables:	Procurement decision (December 2008) Technical briefing paper (June 2009) Final configuration and installation plan for deployment Interim report on proof of concept produced (June 2009)
Users/Locations:	Work on evaluating systems, piloting and technical development will be conducted by Computing Services Project Officers

Package:6	<i>Deployment</i>
Scope:	Wi-Fi design to accommodate location tracking. Tracking systems operational in Augustine House. Temporal, spatial and demographic data being recorded and analysed. Data in relation to pedagogic questions being acquired
Dates/Duration:	October 2009 – March 2010 (6 months)
Deliverables:	Technical deployment – installation of servers and clients. Wireless location devices and thin client software and hardware installed for opening of Augustine House in September 2009 Commissioning – signage, locations, operating procedures, security. Tracking data produced.
Users/Locations:	Deployment will be conducted by Computing Services Project Officers

Package:7	<i>Dissemination</i>
Scope:	Work and findings from i-Borrow disseminated throughout and beyond the project funding period.
Dates/Duration:	October 2008 – September 2010
Deliverables:	Project website (December 2008) Contribution to JISC dissemination activities for Programme Links to JISC evaluation team Final Report March 2009 One day conference March 2009 Open days for HE visitors (Summer 2010)
Users/Locations:	Dissemination activity will be undertaken primarily by the Project Officers in liaison with the Project Management Team and external consultants