JISC Project Plan

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Project Director			
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Partner Institutions			
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Programme Manager	Chris Brown		

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1. Project Overview

1.1 Project Summary

The RAPID project will aim to provide rich, meaningful, management information to help inform resourcing decisions e.g. investment in subscription to externally based services such as e-resources.

Newcastle University provides access to internal and external hosted services for its 20,456 students and 5062 staff members. Log data is captured relating to access of services by users, but this data in its original format is unwieldy and often poorly used. It is therefore difficult to build up an informed picture of the services members of the University are using. Many of the services used by the University are subscription based with a substantial investment made to subscribe to the services. Reporting is available from external service providers, yet due to anonymised access, they lack any demographic breakdown. The project will aim to produce management information which provides this information (student faculty/year of study etc.) that the external reports lack. By providing this information, it is hoped that the University will be in an improved position to be able to make decisions on subscriptions to external services.

The project will also aim to provide management information relating to the use of internal services. This information is important for the University to be able to assess the usage of these services and to decide upon future investment in them. The project will also extend to look at log data for physical resources, including PC cluster room (PC lab) usage.

Pilot investigation will be carried out into the link between student engagement with IT services and course retention. Identifying students who have not made use of IT services in a given period of time could help schools to provide support to these students in order to prevent them dropping out of their course. The University, and HE sector in general, strives to provide the best possible student experience, it is hoped that the production of this information will play an important role in this.

In order to achieve this, the project will deploy the software toolkit which has been developed by Cardiff University as part of the JISC funded RAPTOR project. With this tool, the project will aim to produce concise, usable and timely usage reporting which will be of benefit across the University and report our findings to benefit the HE community.

1.1 Objectives

- Install, test and integrate RAPTOR with existing web applications (e.g. Shibboleth, Grouper, EZProxy) at Newcastle University in order to enable the production of management information.
- Engage with project stakeholders to identify and document use cases for the production of management level information from composite log analysis.
- Make available an agreed set of management information reports to project stake holders, setting the foundations to be able to make these reports available as a service.
- Disseminate our experiences working with RAPTOR and lessons learnt from the project to the HE community via various means e.g. dissemination events, website updates, online video, twitter feed and project reports.

1.2 Anticipated Outputs and Outcomes

The project outcome will be to make management information, based on log data, accessible easily. This will facilitate:

- A better understanding of what information is available.
- Further information to help make informed decisions on resourcing and investment.
- Guidance on how this information can help to improve the student experience.

Output / Outcome Type *(e.g. report, publication, software, knowledge built)*	**Brief Description**
Publication	Project plan, including work packages.
Publication	Policy for the use of log data, retention policy, who can use the data.
Screencast/Video	To demonstrate the use of the RAPTOR tool, process from raw log files through to the final report view.
Publication	With project stakeholders from the Library, establish a set of use cases for the production of reports from Shibboleth/Grouper logs, including logins via the SPNEGO login functionality.
Publication	Produce written user documentation which highlights the processes involved in linking RAPTOR with Shibboleth and Grouper to complement documentation already available from the RAPTOR project.
Publication	With project stakeholders from Learning, Teaching and Research, produce a set of use case documents for the production of cluster room usage and the Blackboard VLE tool.
Event	Dissemination event to discuss and demonstrate work that has been carried out as part of the project. This will be open to internal members of staff and also members from the wider HE community.
Publication	Report for the HE community, detailing how Cluster and VLE logs can be analysed to provide valuable management information.
Publication	Report on the benefits of e-resource usage monitoring and log analysis of cloud hosted services.
Publication	Report on the effectiveness of RAPTOR in producing management information and discussing future in-house usage/further benefits that could be gained.
Presentation	Project start-up presentation to all project team members, advisors and stakeholders.
Publication	Report on the ability to be able to identify students who are not engaging with the University's IT services and if this information is valuable to Faculties/Schools.
Publication	Initial draft service outline to ensure the embedding of the reporting beyond the life span of the project.
Knowledge built	Better understanding about usage to service owners will help with resourcing within the University, as well as helping to ensure IT clusters provide an improved student experience.

1.3 Overall Approach

1.3.1 Strategy and Methodology

The work within the project will be approached from a benefits realisation perspective; the technology will be implemented to realise potential benefits, rather than the technology leading the project. This will allow the project to track these benefits throughout the project, with continuous reviewing to ensure to see if the intended benefits have been realised and are on course to be sustained after the end of the project.

A benefits-led approach will also help to keep stakeholders on board with the project and get more project buy in from within the Institute and the HE community. Stakeholder engagement

throughout the project will be vital with this approach to ensure that the project keeps focused on the intended benefits and outcomes.

1.3.2 Scope and Boundaries

Usage analysis of external services will be limited due to the possible restrictions of accessing external providers log files. The project will investigate this area and will use external log data where possible and appropriate.

The project will identify numerous use cases throughout the project, which will benefit the institute and wider HE community, yet, due to the short lifespan of the project, it will not be possible to deliver solutions to all use cases within the project. Some use cases and their benefits will therefore be realised after the project completes.

The creation of a fully embedded service for management information will not be possible within the timeframe of the project. Official service acceptance procedures need to be carried out. The project will help determine the roadmap for what the service will be, with the service being put in place after the project end.

1.3.3 Critical Success Factors

- The integration of the RAPTOR software within the University's IT infrastructure. To be able to use the software with Shibboleth, Grouper and VLE logs in order to produce reports.
- Identification of and responses to valid use cases to aid the institution and the wider community
- Ensuring that both the community is kept engaged within the project, this includes internally within Newcastle University and also in the wider HE community.
- Ensure the use of log data fits within the DPA legislation, this will be determined by working with the University's Information Security Officer.

1.4 Anticipated Impact

Impact Area	Anticipated Impact Description
Maintain Teaching & Learning Excellence	Knowing what data is stored about student's access to applications/cluster rooms etc. Make this data available where possible to target improved delivery of resources.
Be more effective/save money	Making log information more accessible in order to help decision making around resource investments, e.g. E-journal subscriptions, internally ran services.
Maintain Teaching & Learning Excellence	Pilot activities working towards better student retention; investigate the feasibility of running reports on students who have not used IT services within the first X weeks/months of term.
Be ready for technology needs in the future	Improved information to help determine University's technological/business drive. • Moving towards non-ip authentication. • Push use of EZProxy. • Decide where investment in technology is required.
Maintain Teaching & Learning Excellence	Target application deployment to correct students.
Maintain Teaching & Learning Excellence	Identify misuse of specialised cluster rooms. • Run reports on students who log into specialised cluster room machines for non-specialised tasks.
Have a positive impact on wider society	Dissemination of the production/feasibility/accessibility of making this information available within an institute. Sharing

	experiences with the rest of the higher education community.
Be more effective/save money	Giving the ability to break log information into categories staff/students/schools/course types, helps to identify areas which need improving etc.
Be ready for the future	The work within the project will aim to set the way forward for making more log information available after the lifespan of the project.

Impact Areas : maintain research excellence; maintain teaching & learning excellence; be more effective/save money; have a positive impact on wider society; be ready for technology needs in the future.

1.5 Stakeholder Analysis

Stakeholder	Interest / stake	Importance (H/M/L)
ISS/Newcastle University	As this is the host site for the project the University on a whole is very important to be able to deliver project outputs and the project to realise its benefits.	H
RAPTOR Project Team	Providing the technology to be able to deliver key outputs for the project, without engagement the project would be restricted.	H
Library	Management information about e-resource access, EZProxy usage, external access to resources. Involvement. Engagement is crucial in order to identify use cases.	H
JISC	Funding the project and the associated programme, communication and engagement with the programme manager and other JISC projects is vital.	H
Faculty/School Heads	Reporting on the lack of student engagement with IT resources. Using this information to inform faculty/school heads to monitor student retention.	M
Students	With reporting on cluster room usage and application usage, this information can be used to focus on areas for improvement e.g. ensuring appropriate applications are available.	L
Learning Technologists (ISS Learning Technologies)	The work in the project will enable the reporting on application usage, this will enable the Learning Technologies team to determine the usage of applications and to inform on investment in applications.	M

1.6 Related Projects

The RAPTOR project is directly related to the RAPID project. The project will be making use of the key output of this project, the RAPTOR tool.

http://www.jisc.ac.uk/whatwedo/programmes/aim/raptor.aspx
http://iam.cf.ac.uk/trac/RAPTOR

1.7 Constraints

Staffing time is one of the main constraints. Ensuring that members of the project team are available when required.

The use of the information that is produced from the logs is restricted to the DPA legislation and the guidance provided by the Information Security Officer.

Time of project is relatively short to be able to deliver all identified benefits within the timescale. The project will deliver benefits where possible, leaving the foundation for the work to continue.

1.8 Assumptions

Have access to log data for Shibboleth, Grouper, Blackboard and other applications as well as logs of authentication to campus desktop machines.

1.9 Risk Analysis

Risk Description	**Probability (P) 1 – 5 (1 = low 5 = high)**	**Severity (S) 1 – 5 (1 = low 5 = high)**	**Risk Score (PxS)**	**Detail of action to be taken** (mitigation / reduction / transfer / acceptance)
Failure to engage library with project	1	5	5	Library have been consulted at the bidding stage and will have a key involvement in the identifying of project benefits/use cases and its output.
Organisational Engagement	1	4	4	The head of Information Systems and Services recognises “Analytics” as a key issue highlighting the organisations buy in to the project. A communication strategy will define plans for the co-ordination of project meetings and material to ensure organisation buy-in throughout the project
Software does not meet functional requirements to deliver outputs	1	3	3	The engagement with Cardiff University that has been factored into the project will allow for discussion of missing functionality with the software developers and identify solutions/workarounds.
Staff availability/loss	2	3	6	The risk will be mitigated with having two project leads.
Scope creep	3	2	6	The objectives and outputs will be clearly defined and agreed within the project plan.

DPA issues, not being able to use data as planned e.g. student engagement reports	2	4	8	The involvement of the ISS Information Security Officer will ensure that the correct approach is taken whilst determining what information can be produced/released.
Organisational (WP4) – Lack of buy in from faculty/school heads for the production of student engagement information.	2	2	4	Involve faculty/school administrators from early stage to determine what information would be useful and whether this is viable.

1.10 Technical Development

There will be no direct software development within the project, yet we will still follow the processes below for the deployment of the RAPTOR tool

Installation and testing of the RAPTOR tool will be carried out within a development environment ensuring that it has no impact on live services. Once satisfied that the tool is ready for use it will be pushed out to the necessary clients.

All the installation and configuration of the tool will be documented on the project wiki and on the completion of the initial setup, will be documented and made available to the wider community.

1.11 Standards

Name of standard or specification	Version	Notes
Prince2 project methodology	Current	The management of the project will use concepts from Prince2, but will also incorporate Newcastle University project management methodology.
ITIL	Current	All service related documentation will be produced in line with the department's ITIL standards.

1.12 Intellectual Property Rights

Outputs of the project will be freely provided to the Higher education sector (within legal limitations e.g. Data Protection Act). IPR will be owned by Newcastle University and copyright works will be licensed to be used and adapted for free under appropriate open source licensing agreements, such as Creative Commons, Apache License 2.0 and GPLv3.

2 Project Resources

2.1 Project Partners

The project will be run solely by the Systems Architecture team in the Information Systems and Services department at Newcastle University.

2.2 Project Management

The management of the project will be carried out by the project leads, in consultation with the project advisors and institutional support contacts. The project leads will manage the day to day aspects of the project and carry out periodic reviews of the project and work package progress to ensure the project is running to schedule.

The project will use aspects of the ISS project management framework alongside the Prince2 project management framework. The project team will select approaches and processes from both frameworks which are most suitable to the project timescales and scope. One of the key objectives taking out of the ISS Project Management methodology will be the relationship with stakeholders, ensuring that this is correctly managed and developed.

Throughout the project, a number of meetings will be carried out with all project team members to discuss the overall status of the project and to present any outputs/outcomes that have been achieved. An initial meeting has been held within the first week of the project, two further meetings will be scheduled, one halfway through the project and at the project close. Smaller focus meetings will take place throughout the project with appropriate work package stakeholders involved.

The project team will maintain a risk register as part of the project. Not all risks can be identified at the beginning of the project, by maintaining a risk register it will ensure that new risks are considered throughout the project lifespan. Therefore the project can react and deal with any risks or indeed opportunities identified. A lessons log will also be maintained to help inform future projects. A benefits review report will also be carried out to discuss whether the desired benefits have indeed been achieved, or if they are on course to be achieved after the end of the project.

2.3 Project Roles

Team Member Name	Role	Contact Details	Days per week to be spent on the project
Chris Franks(Infrastructure Systems Administrator)	Joint Project Manager	Chris.franks@ncl.ac.uk 0191 222 3574	2.5 days a week
Richard James(Infrastructure Systems Administrator)	Joint Project Manager	Richard.james@ncl.ac.uk 0191 222 8638	2.5 days a week
Jan Clark (Electronic Serials and Metadata Librarian)	Institutional Support	Jan.clark@ncl.ac.uk	2 days a month
Andrew Martin (Collaborative Systems Analyst)	Institutional Support	Andrew.martin@ncl.ac.uk	4 days a month
Paul Thompson (Senior Collaborative Systems Analyst)	Institutional Support	p.thompson@ncl.ac.uk	2 days a month
Peter Dinsdale (Information Security)	Project Advisor	Peter.dinsdale@ncl.ac.uk	1 day a month
Claire Heron (Project Officer)	Project Advisor	Claire.heron@ncl.ac.uk	1 day a month
Caleb Racey (Systems	Project Advisor	Caleb.racey@ncl.ac.uk	1 day a month

Architecture Team Manager)			

2.4 Programme Support

No specific areas of support required.

3 Detailed Project Planning

3.1 Evaluation Plan

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
Ongoing	Project management	Is project on target?	Deliverables/progress made against plan	Work packages completed timely
April 2012	Achievements against aims and objectives	Have initial milestones been met on schedule? Do we need to change the plan?	Observation/questionnaires	Stakeholders using RAPTOR/ Outputs seen to be useful
May 2012	Outcomes and impacts	What lessons have we learned so far?	Observation/analysis	Graphing of cluster usage available/use cases disseminated
June 2012	Stakeholder engagement	Are stakeholders on board?	Observation	Benefits of e-resource work with library felt by both
July 2012	Effectiveness of the project	Is our dissemination effective? What lessons have we learned? What impact did the project have?	Questionnaires, focus groups, interviews, observation	Graphed information accepted as valuable to the University and HE community

3.2 Quality Assurance

Output / Outcome Name	**Publications**	
When will QA be carried out?	**Who will carry out the QA work?**	**What QA methods / measures will be used?**
Ongoing	Project Team	Observation Peer review
Output / Outcome Name	**Presentations**	
When will QA be carried out?	**Who will carry out the QA work?**	**What QA methods / measures will be used?**
While writing presentations	Project Team	Observation Peer review
Output / Outcome Name	**Screencasts**	
When will QA be carried out?	**Who will carry out the QA work?**	**What QA methods / measures will be used?**

Before and after creating	Project Leads	Observation Audience sampling
Output / Outcome Name	**Use Cases**	
When will QA be carried out?	**Who will carry out the QA work?**	**What QA methods / measures will be used?**
Ongoing	Project Team	Peer review
Output / Outcome Name	**Dissemination Event**	
When will QA be carried out?	**Who will carry out the QA work?**	**What QA methods / measures will be used?**
While planning event	Project Leads	Requirements gathering Planning Peer review

3.3 Communication and Dissemination Plan

Newcastle University has previously completed several JISC-funded projects (G-FIVO, ID-MAPS etc); this project will adopt the tried and tested communication methods adopted by these projects (detailed below) to ensure clear and regular dissemination to the HE community. A project website has been created at http://research.ncl.ac.uk/rapid which will act as a hub for the HE community to refer to the project status.

A mailing list of internal (Newcastle University) project stakeholders has been set up, along with a collaborative wiki to aide drafting of ideas and outputs relating the project. Screen cast recordings to visualise complex scenarios will be created and uploaded to the website. Additionally, the project has a Twitter feed at http://twitter.com/rapid_project where the project team intend to disseminate short messages relating to project-process, as well as links to further reading materials.

In addition to electronic dissemination, the project team will also present at the McShib event on the 6th March 2012. The RAPTOR software developers will be on hand at the event to answer specific questions regarding their product. This event is attended by IT administrators from HE/FE institutions across the UK and is a chance to engage with peers regarding log analysis and the RAPTOR software. In particular, it will be the first time the project team has met the developers (while the project has been running) and will be an excellent opportunity to share ideas with them.

Furthermore, the project intends to host an internal dissemination event for University members of staff regarding the availability and potential uses of information from web/access log files. This will take place towards the end of the project. Also towards the end of the project we aim to present at a UK based dissemination event for HE IT staff/management regarding the outputs/findings of the project.

Timing	Dissemination Activity	Audience	Purpose	Key Message
March 2012	McShib – Edinburgh	HE/FE IT staff	Engage with community. Discuss project potential. Engage with Cardiff RAPTOR staff	Newcastle have started a JISC project to facilitate management usage of log data by interpretation via RAPTOR.
TBC	Internal Dissemination Event	Newcastle University members of staff	Engage key figures in the University; make them aware of potential of log	Management level data can be attained simply from complex log files, using the

			analysis.	RAPTOR software installed at Newcastle.
TBC	UK Based Dissemination Event	HE/FE IT staff/management	Report the findings of the project orally and visually to a set of interested parties	Log analysis can produce worthwhile and informative data.

Note: no formal dates for end-of-project dissemination have been set yet, but we will await opportunities such as UK-JASIG event for external dissemination and fit the internal event around these events where possible. Previous JISC projects ran from Newcastle have adopted this approach and it has been seen to work well.

3.4 Exit and Embedding Plans

Project Outputs/Outcomes	Action for Take-up & Embedding	Action for Exit
Use case documents	Dissemination of the use cases is important so that other potential use cases can be identified and so that other HE institutes are able to see how work relates to their environment.	Publish use case documents on project website. These will be available for 5 years after the project.
RAPTOR Reporting tool web console/clients	Demonstrate the usefulness and benefits of using the reporting tool. Providing appropriate documentation materials e.g. screen cast videos.	The web console/clients will be maintained and supported by the Systems Architecture team once the project has been completed.
Service outline document	Working with ISS service documentation guidelines shape the service and to get buy in for a service to be adopted by ISS.	The service outline created will be used to go through the official acceptance criteria for a new service in ISS. Once this has been completed full service documentation will be created and published.
Management Information Policy Document	In consultation with the Information Security officer, faculty/school heads to agree an acceptable policy.	Publish the document with relevant IPR license. Ensure that the document is continuously reviewed after the project end to ensure it is kept in line with new legislation.

3.5 Sustainability Plans

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
RAPTOR Reporting tool web console	The RAPTOR tool provides the technical capability to be able to produce the management information reports for E-journal, cluster room usage etc	The Systems Architecture team will continue to maintain the tool after the project end. This will include the upgrading to newer versions of the tool.	Ensure end users are trained and able to use the RAPTOR web console to reduce the management burden on the Systems Architecture team.

Service Outline Document	The service outline document will form the basis for	The service initiation document will be considered by ISS service delivery team and management before being accepted as a service.	Project the benefits of implementing as a service e.g. make benefits review report available
Management information policy	Policy needs to be kept up to date to keep in line with current legislation.	Information security and systems architecture teams will periodically review document.	

Appendices

Appendix A. Project Budget

Attached in email to Chris Brown

Appendix B. Workpackages

Attached in email to Chris Brown