

WHELF - Library Management System Operational Requirements

Annex 1 LMS (CONFIDENTIAL)

MR=Major Requirement, HDR=Highly Desirable Requirement, DR=Desirable Requirement

Ref. No.	Requirement	Requirement Rating	Supplier Response
1.0	High Level System Requirements		
	High Level System Requirements: Introduction		
	Support for integrated management of print, online and digital resources. Resource management tools to use a common configurable workflow engine to manage all types of materials regardless of format.		
	Resource discovery to enable library users to search across all resources in a single interface, but to also offer the ability to offer separate interfaces to search certain resource types or collections.		
	High Level System Requirements: General		
	Transactions throughout the system to be carried out with secure connections including but not limited to; <ul style="list-style-type: none"> • APIs • SIP2 • web forms Please explain in detail how your processes are carried out securely including any exceptions.	MR	
	Provide Unicode support across the system, including the storage of records, the library user and administrative interfaces and in any mechanisms for data import and export. Explain in detail how Unicode support is provided.	MR	
	Describe URI link checking functionality across the system for testing URIs and reporting on broken links.	HDR	
	Support for storage and use of unique identifiers including a full range of Unicode characters with length up to 50 characters across the system e.g. library user barcodes, email addresses.	HDR	
	Provide a copy of the development roadmap for all areas of the system.	MR	
	Describe your process and strategy for product development.	DR	

	<p>Web services to deliver fresh content where available rather than using a cached version.</p> <p>e.g. As a library user or library staff member if an interface is updated I want to see the latest version in my browser, not an out of date cached version.</p>	HDR	
	<p>Detail the level of access institutions will have to any servers holding the system.</p> <p>e.g. as a Library Systems administrator I want to be able to manipulate my institution's software.</p>	DR	
	High Level System Requirements: Local systems		
	<p>Integration in a transparent manner allowing ongoing updates to and from these systems using a data framework. The following student information systems are currently in use:</p> <ul style="list-style-type: none"> • Banner (Ellucian) • QLSV4 Production (Unit 4) • Quercus Plus (CampusIT) • SIMS (supplier needed) • SITS: VISION (Tribal) <p>Please describe in detail how data would be imported from / exported to these student information systems and also whether real-time or batch.</p>	MR	
	<p>Provide a generic mechanism for data to be imported from / exported to student information systems. Please describe in detail how this will be achieved (APIs, flat data files) and details of any cost involved.</p> <p>e.g. As a system manager at Aberystwyth University, I want to be able to use a generic process to regularly import from our in house student information system so that I am able to keep our library user records up to date.</p>	MR	
	<p>Integration in a transparent manner allowing ongoing updates to and from these systems using a data framework. The following HR and Donor systems are currently in use:</p> <ul style="list-style-type: none"> • Agresso (Unit 4) • CoreHR (Core International) • Cyborg (SumTotal) • Northgate (supplier needed) • Trent (Midland HR & Payroll Solutions) • IRIS Donor Strategy (Advanced NSP) - donor management <p>Please describe in detail how data would be imported from / exported to these HR and Donor systems and also whether real-time or batch.</p>	MR	

	<p>Integration in a transparent manner allowing ongoing updates to and from these systems using a data framework. The following finance systems are currently in use:</p> <ul style="list-style-type: none"> • Agresso (Unit 4) • Aptos (supplier needed) • Coda (supplier needed) • Cognos (supplier needed) • Oracle EBS (Oracle) • BluQube (Symmetry) • Sage (Sage) • Opera II (Pegasus) <p>Please describe in detail how data would be imported from / exported to these finance systems and also whether real-time or batch.</p>	MR	
	<p>Interoperability with resource discovery (inc. federated search) services. The following systems are currently in use:</p> <ul style="list-style-type: none"> • Aquabrowser (ProQuest/Serial Solutions) • Discover (EBSCO) • Encore Synergy (Innovative Interfaces Inc) • Metalib (ExLibris) • Primo (ExLibris) • Summon (ProQuest/Serials Solutions) • VUFind (VUFind) <p>Please describe in detail integration with these systems including, but not limited to; how integration is achieved with library account information, placing requests (holds/recalls), viewing transactions and the bibliographic database, how metadata and availability data is published from the back end system to these resource discovery environments.</p>	MR	
	<p>The following Knowledge Base services are currently in use:</p> <ul style="list-style-type: none"> • 360Core (ProQuest/Serials Solutions) - Knowledge base • GOKB (GOKB) - Knowledge base • Knowledge Base Plus (JISC Collections) - Knowledge base • SFX (ExLibris) - Knowledge base • Electronic Resource Management (Innovative Interfaces Inc.) - Knowledge base <p>Please describe in detail how your systems would be able to work with these knowledge bases should any institutions wish to use them with your systems.</p>	MR	

	<p>The following recommender services are currently in use:</p> <ul style="list-style-type: none"> • bX (ExLibris) - Recommender service • LibraryThing - Recommender service <p>Please describe in detail how your systems would be able to work with these recommender services.</p>	MR	
	<p>The following authentication services are currently in use;</p> <ul style="list-style-type: none"> • IP based user authentication • Library Card barcode and PIN • LDAP (Open) • OpenAthensLA (Eduserv) • Shibboleth (Open) • Central Authentication Service (CAS) <p>Please describe in detail how your systems would be able to work with these authentication services.</p>	MR	
	<p>The following proxy services are currently in use;</p> <ul style="list-style-type: none"> • EZProxy (OCLC) - cloud-hosted and locally deployed user authentication • OpenAthensLA Proxy (Eduserv) • WAM Web Access Management (Innovative Interfaces Inc.) <p>Please describe in detail how your systems would be able to work with these proxy services.</p>	MR	
	<p>The following additional services/systems are currently in use;</p> <ul style="list-style-type: none"> • Fedora Commons Repository • Blackboard (Blackboard) - VLE • DSpace (DuraSpace) - Institutional Repository • ePrints - Institutional Repository • JUSP usage stats (JISC Collections) - management reporting • Moodle (Open Source) - VLE • Rebus:List (PTFS) - reading list management • Talis Aspire (Talis) - reading list management • Calm (Axiell) - archives management <p>Please describe in detail how your systems would be able to work with these services.</p>	MR	

	<p>The following self service hardware is currently in use;</p> <ul style="list-style-type: none"> • Self return sorters (2 and 3 bin) (2CQR) • Self issue/return/renew units with cash and/or card payments (2CQR) • Self issue / multiple bin sorter / fine payment kiosk (3M) • SmartServe self issue & return / multiple bin sorter / fine payment kiosk (Bibliotheca) • SmartGate manager (to monitor and report on items passing through the security gates) (Bibliotheca) <p>Please describe in detail how your systems would be able to work with this equipment.</p>	MR	
	<p>The unified resource management environment ensures that the institutions can, if desired upon migration, decommission the following local systems:</p> <ul style="list-style-type: none"> • 360 Core (ProQuest/SerialsSolutions) - ERM, knowledge base and link resolution systems • Alto (Capita) - Library Management System • Horizon (SirsiDynix) - Library Management System • Millennium, WebBridge LR and Encore Synergy (Innovative Interfaces Inc.) - Library Management System, link resolution system and resource discovery • SFX (ExLibris) - Open URL link resolution systems and Knowledge base • Voyager (ExLibris) - Library Management Systems • WorldCat Local (OCLC) - knowledge base, resource discovery and link resolution systems <p>Please identify which of these systems would be able to be decommissioned upon migration to your systems.</p>	MR	
	Please provide details on supported SMS gateways and SMS services.	HDR	
	High level system requirements: Approach to link resolution		
	Some institutions currently use OpenURL resolvers built into their existing systems and will choose to replace these when migrating to the new shared library management system and resource discovery platform. Other institutions may wish to retain their existing OpenURL resolver.		
	Offer an integrated OpenURL link resolver.	MR	
	If an integrated OpenURL link resolver is supplied, ability to disable it and replace it by an externally provided resolver, e.g. as currently in use by the institutions.	HDR	
	<p>The following link resolvers are currently in use;</p> <ul style="list-style-type: none"> • 360Link (ProQuest/Serials Solutions) - OpenURL linking service • SFX (ExLibris) - OpenURL linking service • WebBridge LR (Innovative Interfaces Inc.) - OpenURL linking services <p>Please describe in detail how your systems would be able to work with these link resolver services.</p>	HDR	

	High level system requirements: Interoperability		
	Integration with other systems is achieved through utilisation of Service Oriented Architecture approaches. Please describe in detail how a Service Oriented Architecture is utilised.	MR	
	Provide Open Application Programming Interfaces (APIs) and/or other interfaces that will allow the institutions to develop extensions across the system as well as integrate the software into the local institutional environment.	MR	
	High level system requirements: Workflows		
	The institutions wish to deliver business processes through workflows. Please describe in detail how workflows are configured. e.g. As a library staff member, I want to be able to create/update workflows so that they enable our business processes to work efficiently.	MR	
	Workflow creation and update to be a configuration task, meaning it can be undertaken without the need to change code in the application.	HDR	
	Provision of a process for designing workflows. Institutions to be able to build complex role-based workflows allowing them determine the direction of a process. Please describe in detail how library staff can design a workflow.	MR	
	Provision of a method for testing workflows that have been created or updated.	HDR	
	Ability for workflows to collect data from library staff and library users. Describe how different workflows collect data from library staff and library users.	MR	
	Ability for workflows to create alerts for tasks assigned to individual library staff / library defined roles. Describe the creation of alerts including examples of the creation of alerts in workflows. e.g. As a library staff member, I want library staff member X to be reminded to carry out task Y if they haven't already done it so that tasks are completed in a timely way. e.g. As a library staff manager, I want the system to alert library-defined users when a library staff member accepts or rejects a decision as part of a workflow.	MR	
	Library staff to be able to set time limits for tasks in workflows. When task is not completed within the time limit, the system to create and send an alert to the individual/role who is responsible for doing the task.	HDR	
	When tasks remain uncompleted after alerts, the system to automatically route the outstanding task to alternative library-defined individuals or roles (including escalation if required).	HDR	

	Appropriate roles to have an overview of a workflow including the current status and history, the workflow owner and the time elapsed since last update (e.g. administrator or workflow owner). Describe how this is achieved.	HDR	
	Ability for administrator roles to be able to reassign tasks in a workflow to another member of library staff or library user or to change the route of a workflow.	HDR	
	Ability to build workflows with tasks that run a predefined period before / after an event.	HDR	
	Ability for nominated individuals (e.g. administrators) to create workflow requests on behalf of a group of library staff who do not have web/system access.	DR	
	Ability for institutions to construct workflows based on any fields within the system.	HDR	
	Please highlight any areas of the system where it is not possible to build workflows.	MR	
	Support for different kinds of role-based/individual approval within workflows. e.g. majority vote amongst a group of individuals, peer approval, line manager approval. Give examples.	HDR	
	Support a number of roles/groups for workflow purposes (e.g. Research Administrator, Research Group Manager, Researcher, School Administrator). Please explain how the system manages membership of users for these groups.	MR	
	Provide shared work-lists for roles (e.g. administrators, issue desk, cataloguers). Approved tasks/alerts to be delivered to these work lists for processing.	HDR	
	Support for attaching files to workflows. List the types of files which may be attached to workflows, noting any file types which may not be attached.	HDR	
	High level system requirements: Searching/indexing		
	System supplied with a standard set of indexed fields, including, but not limited to; <ul style="list-style-type: none"> • author • keywords • title • subject • series • package • call number • ISBN/ISSN • provider • publisher • notes Please provide a list indicating which of the above indexes are provided and which other fields are indexed in the system.	HDR	
	High level system requirements: Standards/protocols/technologies/frameworks/models		

	<p>Demonstrate support for the following:</p> <ul style="list-style-type: none"> • COUNTER (standard) • KBART (record format) • MARC21 (record format) • NCIP (protocol) • ONIX-PL • AACR2 and RDA (Standards) • SIP2 (protocol) • SUSHI (standard) 	MR	
	<p>Support for the following standards/protocols/technologies/frameworks/models;</p> <ul style="list-style-type: none"> • FRBR (standard) • Library Communications Framework (Framework) • NCIP 2.02 (protocol) • QR codes (barcode system) <p>Describe in detail how your systems supports these standards/protocols/technologies/frameworks/models.</p> <p>e.g. As an RFID enabled library, I want to use an open and accessible framework to explore an extended range of activities in addition to those currently supported under the SIP2 standard provision.</p>	HDR	
	High level system requirements: Legal/compliance		
	<p>Fully compliant with current UK and European Union legislation, including but not limited to;</p> <ul style="list-style-type: none"> • Data Protection Act 1998 • Equality Act 2010 	MR	
	<p>Personal data and back-ups to be stored in the European Economic Area, or in the US under Safe Harbor, or in an ICO approved country in all circumstances including a failure of the primary data site.</p>	MR	
	<p>Permissions based access to enable institutions to control access to data.</p> <p>e.g. As system manager I want to manage permissions so that each institution can only see library user records of its own library users.</p> <p>Please describe your process for managing access rights.</p>	MR	
	<p>Supplier obtains prior written consent from the institution(s) before transferring any personal data to sub-contractors.</p>	MR	

	Provide the institution(s) with full co-operation and assistance in relation to any complaint or request pertaining to the Data Protection Act.	MR	
	Provide the institution(s) with full co-operation and assistance in relation to any request pertaining to the UK Freedom of Information Act.	MR	
	Allow the institution(s) or its auditors to audit data processing facilities to ascertain compliance with the contract.	MR	
	Indemnify the institution(s) for claims arising directly or in connection with supplier data processing activities.	MR	
	Explain how the system complies with the EU e-Privacy Directive 2011.	MR	
	Any usage of cookies is in compliance with UK privacy and electronic communication regulations i.e. Cookie Law: http://www.aboutcookies.org/default.aspx?page=3	MR	
	Deliver language agnostic system functionality in a manner which is compliant with the Welsh Language Measure 2011 meeting the needs of all Welsh language users and supporting Welsh language content and submissions including meeting the requirements of the Welsh language schemes of the participating institutions (Welsh Language Schemes of consortium institutions available on request).	MR	
	Describe the safeguards you can put in place to ensure the consortium's investment in the event of your company's inability to continue to support the system. In particular, state details of the lodging of source code under Escrow agreements or similar.	HDR	
	Information held within the system will remain the property of the institution(s).	MR	
	High level system requirements: System licensing		
	Provide a flexible licensing arrangement to allow individual institutions to opt-in to components based on institutional requirements (e.g. SIP licences). Include information about any licenses that are required, or provided as optional (e.g. SIP licenses for self-issue, open source software, database engine, operating system).	MR	
	System's licensing allows access by authorized users as defined by each institution. Describe how the licencing operates for different groups of authorized users as defined by each institution.	MR	
	High level system requirements: Accessibility		

	<p>Interfaces to be accessible including but not limited to the following;</p> <ul style="list-style-type: none"> • Alternative description tag accessible by screen readers for all images. • Standard user interface controls with programmatically associated labels or descriptions. • On screen elements keyboard or touch accessible. • Resizable screen targets e.g. submit buttons. • Font resizing or pinch to zoom support with ability to configure good contrast between foreground and background items including text and images. <p>Please describe which of these you support and any other accessibility features across available the system.</p>		
	<p>Advise if your product has been tested against any recognised assistive technology, for example TextHelp or SuperNova. If not, provide evidence to demonstrate that your product can be accessed by users with special needs. If web based, provide evidence that your design meets Web Content Accessibility Guidelines level AA standards.</p>	HDR	
	<p>High level system requirements: Identity/rights management</p>		
	<p>Support for administration of access rights for digital materials, based on library user group and collection.</p>	HDR	
	<p>Ability to assign roles, preferences and permissions to library staff functions.</p>	MR	
	<p>A system administrator role with ability to change all settings for an institution.</p>	MR	
	<p>Support for bulk assignment of roles or permissions to library staff functions.</p>	HDR	
	<p>Support for authorization/authentication which is role/attribute based (i.e. a single user can have multiple roles without needing multiple IDs).</p>	MR	
	<p>Access control rights for library staff and the ability to facilitate multiple profiles accessing different combinations of functional modules.</p>	HDR	
	<p>Ability to manually or automatically create, update, activate and deactivate library users using data from organisational systems that serve as the primary source of that user data.</p>	MR	
	<p>Ability to partially update a library user record i.e. update some fields but not others.</p>	HDR	
	<p>Enable institutions to impose access restrictions and equally to allow shared access where appropriate. e.g. so that each institution can only see library user records of its own library users.</p>	MR	
	<p>Allow setup of role-based or individual logins. Please describe your process for managing these access rights.</p>	MR	
	<p>High level system requirements: Interfaces</p>		

Library staff and library users to be able to access functionality across browsers including but not limited to the following; Google Chrome, Internet Explorer, Apple Safari, Mozilla Firefox, Google Android Browser. Describe in detail your current support for browsers across your system.	HDR	
Please describe your approach to interfaces across a range of devices (e.g. responsive design, mobile views, graceful degradation, progressive enhancement). Identify any add-ons required to support functionality with specific devices, or if mobile apps are available or required.	HDR	
Please specify whether it is possible to integrate the service with mobile applications such as CampusM. Please give examples of such integration.	DR	
Ability to customise text labels in interfaces across the system. Explain how this is achieved and identify any parts of the system where it is not possible to customise text labels.	HDR	
Please describe the process required to provide a fully multilingual interface. Provide details of parts of interfaces that cannot be made available in more than one language.	MR	
Please describe how you ensure integrity of local customisation during upgrades.	HDR	
Provision of library staff interfaces in both Welsh and English. Explain how this is achieved, along with the mechanism(s) by which users are able to indicate their preferred language when interacting with the system.	HDR	
Provide details and examples of online and context sensitive help.	HDR	
Library-defined control over authenticated sessions including but not limited to; global and local timeout, close session when browser window closes, logout option. Please describe how you achieve this.	HDR	
Ability to display system wide messages to library staff as they login including the ability to target messages at certain library staff groups by role or by location of library staff. Describe how you achieve this.	HDR	
Describe how you achieve seamless access to all areas of the system based on library staff permission, i.e. no need to login several times	HDR	
Seamless access to all information between workflow areas, e.g. check order status of item from within circulation functionality	HDR	
Logging of system activity for logged in library staff and library users.	HDR	
Ability to create/edit notes recording information about an object in the system (e.g. an item, an order, a claim) to be able to view these notes when the object in being displayed.	HDR	
Ability to automatically record and display the name of any library staff who have made notes and the date / time saved.	HDR	
Allow library staff to update search and display options according to their needs/preferences.	HDR	
Ability for library users to alter the colours of the interface, background and text according to preference, e.g. to assist users with dyslexia or visual impairment	HDR	

Ability for library staff to customise the staff interface across all modules / components of the system to aid ease of use; e.g. font size, background colour, language, ability to bookmark or save favourite / most used functions and workflows.	DR	
Allow pre-defined display options based on workflows/roles.	HDR	
Allow navigation via keyboard shortcuts or mouse.	HDR	
Allow definition of hot keys for frequently used functions.	HDR	
Allow copy on all display fields.	HDR	
Allow copy and paste on all form fields.	HDR	
Ability for library staff and library users to copy and paste data between all modules / components of the system.	DR	
Clickable calendar control available to aid selection of dates in date fields.	HDR	
Date display to be configurable in UK date format i.e. date/month/year. Please list any display of dates where UK format cannot be used.	MR	
Allow access to multiple open windows / processes at any one time.	HDR	
Provide process for local branding for all interfaces (not over-written by each upgrade, including retention of local settings).	HDR	
Functionality to be delivered through a browser-based web interface. Please list any functionality not delivered through a web interface with an explanation.	MR	
Functionality to be delivered without the use of browser plugins (e.g. Java, Flash). Please provide detail any plugins required.	MR	
Explain your approach to usability including design and testing including processes and methodologies used.	DR	
Web application interfaces be compliant with W3C-WCAG (WAI) version 2.0 at a minimum level A. Please describe in detail of levels of compliance for all web interfaces.	MR	
Support for setup and configuration of a range of library staff searches from basic keyword to advanced across the back office system and all types of material. Please describe library staff searches that are available in your system.	HDR	
Support for post-search facets in the library staff search including but not limited to; dates, date ranges, author, language, supplier/vendor, library location, format. Please provide a list of post-search facets available in staff services. Describe any limitations with filter large results sets by facet.	HDR	
Advanced search configuration to support the option of searching multiple fields simultaneously for words or phrases.	HDR	
Provision of spell checking functionality. Please provide details of where spell checking is available across your system.	HDR	

	<p>Ability to use a pre-search filter, for example by;</p> <ul style="list-style-type: none"> • Bibliographic information • Electronic information • Physical title • Physical item • Digital title • Digital files • Format <p>e.g. As a member of library acquisitions staff I want to be able to choose to search only online/electronic items before I enter my search terms so that I can find an online/electronic item more quickly.</p>	HDR	
	Ability for library staff to save and manage result sets and searches. Provide details of where this functionality is available across your system.	HDR	
	Ability for library staff to select items from a result set to create a new set of items that a further action could be performed on e.g. edit a record, view holdings, view items. Provide details of where this functionality is available across your system.	HDR	
	A consistent search interface for library staff regardless of where they are in the system. Provide evidence of interface consistency.	HDR	
2.0	Installation, data migration, training and documentation		
	Implementations to be completed in the timescales indicated in the attached documentation. Please outline the estimated timeline for implementation and provide a typical project plan.	MR	
	A team of supplier staff to be assigned to each implementation for its duration. What, and how many, supplier staff would be typically involved in the implementation; in what roles and where will they be based?	HDR	
	On-site visits by supplier implementation staff. Describe on-site presence from the supplier implementation staff during implementation.	DR	
	Defined channels of communication between library staff and supplier implementation staff. How many library staff would typically have direct involvement in the project, in what roles and at what level?	HDR	
	<p>Project support to be available during UK office hours (9am - 5pm) throughout an implementation, to provide assistance and advice regarding configuration and functionality/training.</p> <p>Describe availability and level of support during implementation:</p> <p>(a) during UK office hours 9am - 5pm Monday to Friday</p> <p>(b) outside of UK office hours, evenings, overnight and weekends.</p>	HDR	

	Include in the data conversion process iterations of test conversion during which library staff can check converted data in situ on the new system as well as from reports. Expectation would be for two or more iterations.	MR	
	Provide a sandbox during migration into which our own test data can be loaded/reloaded repeatedly for analysis.	MR	
	Provide information about the mapping process used during the data conversion process allowing the institution to map existing values (e.g. loan statuses, item types) to new ones, including non one-to-one mapping (e.g. old value X maps to either new value Y or Z depending on other criteria in the record).	MR	
	The following data is to be migrated. Describe the data migration process and specify any bespoke conversion services which would be required for each, and whether these are chargeable: <ul style="list-style-type: none"> • Bibliographic (MARC21) • Authority (MARC21) • Holdings (MARC21) • Items • Suppliers • Subscriptions • Library users • Loans Please list which of the above you are able to migrate.	MR	
	Migration of the following data is also preferable. Describe the data migration process and specify any bespoke conversion services which would be required for each, and whether these are chargeable: <ul style="list-style-type: none"> • Orders • Library user notes • ILL requests • Fines • Requests (Holds/recalls) • Purchase order history • Transaction history • Check-in (print serials) including publication patterns • Check-in (print serials) notes • Check-in (electronic serials) • Acquisition funds and fund structures • ERM resource, licence and contact records 	HDR	
	On-site training on each functional area to be provided at each tranche of implementations, either to groups of institutions or to institutions individually.	MR	
	Training to be carried out on systems using consortium data and configurations.	HDR	

	<p>Training aim is to allow libraries to fully utilize the system by the end of the implementation. Describe the quantity and nature of training provided as part of the standard implementation package and for new releases including but not limited to;</p> <ul style="list-style-type: none"> • What other training may be provided on request • If training is routinely provided for existing customers • If training is provided on site who will provide it <p>Indicate where costs would be incurred additional to regular maintenance fees.</p>	MR	
	<p>Libraries to be able to customize and configure systems during implementation, ready for live use. How is this achieved, and what tools will be available for library staff to configure and customize various parameters?</p>	MR	
	<p>A clear escalation path to be available in the event of problems during implementation. Describe the escalation process you support.</p>	HDR	
	<p>The supplier has an export strategy for data held in the system, if institutions request migration to another system. Please describe your export strategy including any assurances on availability of the termination of contract.</p>	MR	
	<p>Provide a set of initial definitions and configurations so that minimal changes can be made to the standard settings.</p>	HDR	
	<p>Ability to enable consortia level configuration (e.g. resource discovery). How is this achieved? e.g. through consortium super administrators to grant roles and permissions.</p>	HDR	
	<p>A set of initial definitions and configurations at the consortia level.</p>	HDR	
	<p>The following data shall be available to be migrated out of the system should member(s) wish to exit at any point. Describe the data migration process and specify any bespoke conversion services which would be required for each, and whether these are chargeable:</p> <ul style="list-style-type: none"> • Bibliographic (MARC21) • Authority (MARC21) • Holdings (MARC21) • Items • Suppliers • Subscriptions • Library users • Loans <p>Please list which of the above you are able to migrate.</p>	MR	

	<p>The following data shall be available to be migrated out of the system should member(s) wish to exit at any point. Describe the data migration process and specify any bespoke conversion services which would be required for each, and whether these are chargeable:</p> <ul style="list-style-type: none"> • Orders • Library user notes • ILL requests • Fines • Requests (Holds/recalls) • Purchase order history • Transaction history • Check-in (print serials) including publication patterns • Check-in (print serials) notes • Check-in (electronic serials) • Acquisition funds and fund structures • ERM resource, licence and contact records 	HDR	
3.0	Support and maintenance		
	Helpdesk services to be provided during UK office hours (Mon-Fri, 9:00-17:00 UK time). Identify the number of support personnel typically available during these hours and whether the support is wholly supplied by you and if not which services are provided by which 3rd parties.	MR	
	Describe in detail your UK presence including offices in the UK and other staff also located in the UK.	HDR	
	Supply a typical example Service Level Agreement (SLA) for the support of the service/system being offered. The final SLA in place for the service will be the result of discussions between the supplier and the consortium at the award of the contract.	MR	
	Please provide details of how inadequate performance would be addressed, including such measures as reduction in future maintenance payments.	MR	
	<p>Please provide examples of monthly reports that you would provide to institutions to demonstrate performance against the SLA. As including but not limited to;</p> <ul style="list-style-type: none"> • Support calls opened in a month • Support calls closed in a month • Days taken to close calls by category • Calls closed within SLA by month • Calls closed outside SLA by month 	HDR	

	<p>Describe in detail your Incident Management process.</p> <p>In particular; How will calls be raised, tracked, escalated and closed? How will the customer with receive alerts regarding call progression? What steps will you take to pro-actively maintain and managed the availability of the system? What steps will you take to pro-actively maintain and manage the support of the system?</p>	MR	
	<p>Supply an example of the Service Level Agreement for the support of the implementation of the system being offered. Indicate the period that this SLA would be in place and how you would transition from this SLA to that covering the post implementation support of the system.</p>	HDR	
	<p>Supply an example of the Service Level Agreement for the support of non-production instances of the system.</p>	HDR	
	<p>Identify the circumstances and method of alerting consortium members of issues found with other customers of the proposed system and that might affect their instance.</p>	HDR	
	<p>Identify how you would support the review and continuous improvement in the delivery of the support of the system, including but not limited to:</p> <ul style="list-style-type: none"> • Support account manager role 	MR	
	<p>Describe the helpdesk services available outside of the required hours.</p> <p>Describe how a call raised outside of the required hours would be managed:</p> <ul style="list-style-type: none"> • By prior arrangement with consortium members 	MR	
	<p>Please provide an example of your Release Management process for the proposed system, including but not limited to;</p> <ul style="list-style-type: none"> • Routine maintenance windows 	MR	
	<p>Describe how emergency changes would be managed including but not limited to; the customer alert lead time.</p>	MR	
	<p>Each instance to have a dedicated upgrade window. Identify how much lead time we have to utilise the window and the ability that each have for influencing or delaying the implementation of an upgrade e.g. to avoid critical periods such as summer exams, start of academic year.</p>	HDR	
	<p>Give a timeline for the lifecycle of the proposed system – including end of life dates (beyond which no support is provided), and any periods of reduced support towards the end of life of the system.</p>	MR	
	<p>Please describe the minimum notice period for withdrawal of support and development of the system and your guarantees that these will be met.</p>	MR	
	<p>Identify the arrangements for the Termination of the service including the notice period, data retrieval period and methods.</p>	MR	
	<p>Provide details on organised Customer Community Groups, the frequency of group meetings, membership conditions and relationship to supplier.</p>	HDR	

	Describe your process for capturing, assessing, developing and releasing enhancement requests.	MR	
	Provide a range of induction and ongoing training and documentation for systems and library staff, including a web based customer resource base, software documentation, release notes, information regarding upgrades and patches.	MR	
	Describe how you provide access to customer resources including: <ul style="list-style-type: none"> • A knowledge base that includes extensive information to assist customers in troubleshooting issues and FAQs • Access to product information such as release notes and user group presentations. • Access to all software documentation and training materials • Information regarding upgrades and patches e.g. release notes 	MR	
	Describe the document change procedure and detail how general library staff and technical/IT staff will be made aware of updates.	DR	
	Describe any provision for a managed service option where the supplier takes responsibility for some or all of the management of the system.	HDR	
	Provide details of maintenance periods and levels of support at your data centres.	HDR	
4.0	Development & interoperability		
	Development & interoperability: General		
	Describe with evidence your commitment to develop services specifically for the Higher Education community	DR	
	Support for the institutional development of extensions to the core system to interface and interoperate with external systems. Please describe how you support this and how it is achieved.	HDR	
	Ability to publish/display data within external or mobile systems, for example, via JavaScript, widgets or custom development via APIs. Please give examples.	HDR	
	Demonstrate with evidence your commitment to open standards-based development.	HDR	
	Describe any platform for sharing of customer-developed extensions.	HDR	
	Demonstrate Unicode support across all APIs stating how this is achieved and any areas where Unicode is not supported.	MR	
	Please provide details your software development strategy.	HDR	
	Describe the role of individual customers and customer groups and methods by which the individuals or groups may influence product development and enhancement.	MR	
	Development & interoperability: Sandboxes		

	Supplier provides a pre-production environment where upgrades and changes can be tested for integration and user interface implications prior to implementation on the live environment.	MR	
	Provision of a fully functional and available sandbox/test environment for each institution into which we can load/reload test data as required following migration.	MR	
	Development & interoperability: APIs/services		
	Development functionality in parallel between suppliers own products and APIs allow integration with external products/services. e.g. Suppliers own products/services should consume data from their own APIs so that in the event of an API bug, the supplier's own systems are affected giving them an incentive to fix the API bug promptly.	HDR	
	Please list and describe the APIs available for accessing and updating data and functionality in the system, with code samples and example of usage elsewhere .e.g. via JavaScript, widgets	MR	
	Please provide details of the standards to which your APIs adhere and how they can be accessed e.g SOAP, RESTful	MR	
	Please give details of the output formats of your APIs e.g. XML, json	MR	
	Ability for APIs to Create, Read, Update or Delete (CRUD) data in the following areas; Library Management; • User Services (E.g. List / Update User Details, List / Renew Loans, List / Place / Cancel Requests) • Record Services (E.g. List Record, List Record Holdings, List Record Items) • Circulation Services (E.g. Inter Library Loans, Circulation Statistics)	MR	
	Ability for APIs to Create, Read, Update or Delete (CRUD) data in the following areas; Resource Discovery • Library Catalogue Search (E.g Search by title, search by author) • Metadata Index Search (E.g Search by title, search by author) • OpenUrl Resolver • Custom User Data / Personalization (E.g. Saved items, saved searches) • Citation Management and Creation • Reading Lists • E-Commerce	MR	
	Update library user information through an API or plug-in via institutional systems that serve as the primary source of that information or provide functionality to upload a structured text file	HDR	

	Provide documentation for APIs as well as details of support for sharing of any developments by the institutions.	MR	
	A dedicated contact for customers with API related questions.	HDR	
	Please describe support that is offered to institutions who make use of your APIs e.g. Mailing lists, special user groups	HDR	
	Provision for API changes to go through Change Control Procedures to allow time for custom developments to be updated. e.g. As a web developer I want notice of changes to supplier APIs so that locally developed functionality doesn't break following upgrades e.g. National Library invest in library user/LDAP sync and then the system changes the API and everything breaks.	HDR	
	Provision of Z39.50 client and server functionality	DR	
	Development & interoperability: Software development		
	Describe the development methodology used for your system e.g. coding standards and methods	HDR	
	Describe your quality control, testing and validation processes for the system e.g. test-driven development	HDR	
5.0	Circulation		
	Circulation: General		
	Capacity to manage circulation of all types of physical library material including but not limited to; • books • serials • AV materials e.g. DVDs • theses	MR	
	Capacity to manage circulation of all types of non-print material including but not limited to; • electronic/digital/online resources • software • hardware (e.g. laptops)	HDR	
	Support for circulation of material from closed stacks that must be used within the library e.g. An item is issued to a library user for one day. When it is returned to the desk it will either be returned or held at the desk for the library user for a defined period. The item will then be re-issued to the library user.	HDR	

	<p>Ability to manage closed access material - for library users to request items from remote (or closed) storage and have them brought to the collection location of their choice</p> <p>e.g. A library user requires to borrow an item held off site in a remote store. They should be able to place a request for this item, that alerts a staff member to retrieve it from store. When the item is available in the library, alert the library user.</p>	MR	
	<p>Support for library defined slip printing for putting slip with necessary details into the book, as well as for picking items off the shelf. Should be possible for slips to be identified by the library user without giving away their identity to another library user.</p>	MR	
	<p>Provide the facility to temporarily change item location/item type/loan period and include an alert function.</p> <p>e.g. Distance learners visit the library for short periods of time and certain material is made available for e.g. 2 hour loans, once they are gone again the items are put back on their original loan type/location. Anything that has been assigned a 'temporary' status or location should alert library staff after a library defined time.</p>	HDR	
	<p>Provide automatic blocks and alerts on borrowing items, including but not limited to; expired library users, maximum concurrent loans, outstanding fines/fees, overdue/overdue recall request items, and provision for these to be removed by authorised staff.</p> <p>e.g. As an issue desk staff member I want to prevent library users from borrowing or further renewing items until certain issues are resolved so that they make use of the library in a way that is fair to other library users and meet their requirements in relation to the university e.g. by paying off fines.</p>	MR	
	<p>Automatic blocks/alerts to be automatically removed once conditions no longer exist e.g. library user has paid fines.</p>	MR	
	<p>Allow authorised staff to create manual blocks with an explanatory message.</p>	MR	
	<p>Authorised staff to be able to override any library user block or item block.</p>	MR	
	<p>Show the status of items (e.g. recall request, awaiting collection) to authorised staff and library users via discovery interface.</p>	MR	
	<p>Maintain a loan history for both items and library users, retrievable for a library-defined period</p>	MR	
	<p>Support the circulation of uncatalogued items; library to be able to enter brief information when issuing and assign items to a loan policy, trapping such items on return to allow full details to be input.</p>	MR	
	<p>Support the circulation of unlisted serial issues and facilitates recording of volume, date, issue and notes by library users when requesting.</p> <p>e.g. Where the system holds bibliographic data and summary holdings information and the library user wishes to place a request at issue level.</p>	MR	
	<p>Allow change of item details on the fly, e.g. replace unreadable barcode</p>	HDR	

	Provide ability to trap requested items and other items which require staff intervention on their return to the library.	MR	
	Provide mechanism for library staff to trap items before fulfilling library user requests e.g. Sometimes it is necessary to make changes to an item before the next request is being fulfilled, a staff admin request will need to take priority over a library user request in such cases, e.g. changing heavily used items to short loans	HDR	
	Allow for loans and returns of multiple item sets, e.g. music, drama sets at both issue desks and self service. e.g. As a library user I want to be able to borrow/return multiple item sets at both issue desks and self service so I can borrow these types of items whenever the library is open.	HDR	
	Library configured option for library users to borrow, return and renew items at any issue desk or self-service point.	MR	
	Allow optional restriction of return of items to specific library issue desks or self-service points.	HDR	
	Alert library staff to items which need to be returned to their 'home' location and manage the transit of such items, showing their current status at all times.	MR	
	Ability to send notices to print queues and email addresses. Describe how your system sends notices to print.	HDR	
	Ability to provide library user notice emails in plain text or HTML format with institution defined branding	HDR	
	Allow for text and format of notices to be library-defined with ability to add/remove library user record fields and produce alternative formats (e.g. multilingual).	MR	
	Allow library/institution to define which notices are generated and how they are sent.	HDR	
	Circulation: Issues, Renewals and returns		
	Allow library user expiry date to override normal due date applied to an item if the library user expiry date is sooner.	MR	
	Provide warning of imminent expiry date to be given on screen to library staff when viewing a library user record and to a library user when using self service.	HDR	
	Provide for a time-out on transactions in the circulation staff interface (to prevent the issue of items to a previously accessed library user) e.g. As library staff I want a session with a library user to timeout in circulation so that I don't accidentally issue items for the next library user in the queue to the previous library user.	HDR	

	Ability to backdate the date of return for items to accommodate book drop returns. e.g. As library staff I want the true time of return of any book drop items to be recorded on the system so that they don't incur fines when they are recorded at a later time in the system.	HDR	
	Ability alert library staff to items based on their item status e.g. as 'claimed returned', 'lost' e.g. As library staff I want to be alerted when bringing up an item record/issue/return of any such statuses that staff need to follow up on.	HDR	
	Allow bulk renewal of all items on loan by library staff for a library user (subject to library user and item checks), or the renewal of selected items only.	MR	
	Ability to prevent renewal of overdue items (library-defined threshold), items with requests (holds or recalls), overdue recall requests and items over the renewal limit.	MR	
	Allow for renewal of unseen items at any service point, including but not limited to; self-renewal on resource discovery, self-renewal via automated telephone service, SMS, via self service machines.	HDR	
	System to automatically record method of renewal e.g. issue desk, resource discovery, self service, automated telephone service.	HDR	
	System to record renewal date and time.	MR	
	Provide direct access for authorised library staff to the library user record for personal details and details of loans, fines and requests from issue, return or renewal functions	MR	
	Provide direct access for authorised library staff to a full item record, including request information, from the library user's account.	HDR	
	Circulation: Circulation/fulfilment policy		
	Circulation policies to be library-definable.	MR	
	Ability to assign create/read/update/delete rights to authorised staff with regard to different circulation policies.	HDR	
	Ability to use combinations of circulation configuration items to set rules/policies that will allow the system to operate a fulfilment system.	MR	
	Support variations in library policies between institutions and between different libraries within institutions.	MR	
	Ability to set common circulation parameters across multiple institutions and libraries within institutions.	MR	
	Support for different circulation policies for different libraries within an institution.	MR	
	Support for lending across all institutions in the consortium.	HDR	
	Enable individual libraries to define consortia level circulation policies.	HDR	
	Ability to set loan periods, loan limits and circulation calendars at consortia level, institution level and library level.	HDR	

	Allow configuration settings to create and alter the following items; <ul style="list-style-type: none"> • User groups/types • Item types • Loan periods • Fine types • Fine payment types • Due dates • Open/closed days • Opening hours • Sites/Libraries • Requests (holds/recalls) 	HDR	
	Circulation policies to be configurable by a combination of user group, item type and location to include but not limited to settings listed below;		
	• loan periods (minutes, hours, days, weeks, months, fixed date, overnight, vacations and closed periods)	MR	
	• reference only (non-loanable)	MR	
	• loan entitlements (per item category and overall)	HDR	
	• renewal periods	MR	
	• renewal limits (including unlimited)	MR	
	• recall requests - allow/disallow	MR	
	• recall requests - maximum concurrent (by item category and overall)	HDR	
	• hold requests - allow/disallow	MR	
	• hold requests - maximum concurrent (by item category and overall)	HDR	
	• recall requests - loan period reduction	HDR	
	• requests - time on available for collection shelf	HDR	
	• requests - expiry period for unsatisfied requests	HDR	
	• fine rates - normal and special rates (e.g. overdue requested item)	MR	
	• grace period for return of items (hours or days)	MR	
	• courtesy notice period (hours or days)	MR	
	• overdue notice (number of notices and interval hours or days)	MR	
	• maximum fines (per item loaned)	MR	
	• charges - subscription/membership	HDR	
	• charges - hire charges	HDR	
	Ability to enable/disable recall requests between configured dates in a calendar	HDR	
	Ability for library users to request items from remote (or closed) storage even though they may not be permitted to request items on open shelf which are not currently on loan.	HDR	
	Ability to allow for pick-up and delivery times from remote (or closed) storage	HDR	

	Provide ability for updates to parameters to be deferred until a selected time and define rules/parameters in advance i.e. automatically switch on a vacation rule rather than rely on staff intervention e.g. As library staff I want to be able to set up e.g. vacation loan periods in advance, so that 'standard loans' change from 2 weeks during term time to a long loan with fixed due date during vacation time	HDR	
	Ability to apply a change in circulation policy to specified circulation transactions retrospectively.	HDR	
	Authorised library staff to be able to update parameters with immediate effect	MR	
	Ability to remove library fines from library user records using a bulk process matching on unique identifiers in the library user record	HDR	
	Allow authorised staff to manage permissions to access print and electronic/digital/online resources for different groups of library user e.g. alumni, partner, retired staff	HDR	
	Ability to distinguish between journal records, multipart monographs, and monograph records with respect to requests i.e. no title level requests on journal titles and prompt to input information on which issue/part and ability to group monograph requests by loan type e.g. request any copy that is a 2 week loan but ignore 3 day loans.	HDR	
	Ability to set up automated workflows/processes for lost and missing items. The workflows should allow manual intervention if the item is found, but otherwise should progress the item towards a withdrawn status and remove it from resource discovery. Please describe how this can be done.	HDR	
	Circulation policies to include ability to configure non-loanable items.	MR	
	Ability to set up auto-renewals of items where there are no other pending requests.	DR	
	Ability to configure rules for circulation policies based on library user demand (e.g. demand driven variable loans) and to alert staff to item status changes resulting from application of these policies.	HDR	
	Ability to maintain a calendar of open/closed periods for each location, with circulation transactions taking account of closed periods.	MR	
	Ability to set retention period for borrowing history.	HDR	
	Circulation: User management and library user record		
	Allow authorised staff to create, read, and update library user records both individually and in bulk.	MR	
	Ability for authorised staff to delete library user records, in bulk or individually, except where current transactions, fines/fees or blocks are outstanding.	MR	
	Ability to bulk upload/update user data from other systems. Describe available mechanisms for this.	MR	
	Enable online user self registration (ref Resource Discovery)	MR	

	Ability to print library user cards/tickets based on library user data and including photograph. Describe how this can be achieved.	HDR	
	Allow protection of certain fields to prevent overwriting by external systems.	HDR	
	Option during import to mark a particular library user barcode/library user card as active and to deactivate other library user barcodes/ library cards in the library user record.	HDR	
	The library user record fields including but not limited to; <ul style="list-style-type: none"> • title, • first name • middle name(s) • family name • home address • term time address • email address(es) • home landline • term landline • mobile • user group/category • date of birth • home library • department • course registration date • create date • start date • expiry date • purge date • notes • barcode (including active and inactive if more than one assigned to library user) • unique institution ID, e.g. student or staff number. 	HDR	
	Ability to automatically change the group which a library user belongs to once the library user reaches a certain age (e.g.18).	DR	
	Library user records to be searchable by fields including but not limited to; name, institution identifier, library user barcode, library user record expiry date.	HDR	
	When a library card is 'lost', prevent transactions on that card and alert staff when someone attempts to use it.	HDR	
	Allow for PIN number in library user record (for use with self service machines)	HDR	
	Ability to set a default communication method for alerts, e.g. email rather than printed notice.	HDR	
	If more than one email address in record, ability to set one as default for communication.	HDR	

Provide automated facilities for the production and emailing of library user notices including but not limited to; overdues, fine statements with replacement cost, courtesy reminders, recalls, items awaiting collection, invoice for lost items. e.g. As a library user, I want to receive user defined personal communications (e.g. email) from the library regarding fines, overdue items, soon overdue items and availability of items I've requested via e-mail, SMS text and printed letters so that I am kept informed.	MR	
Ability to prevent alerts being sent to an individual library user, e.g. following death of a library user	HDR	
Circulation: Fines/fees/payments		
Support for different fine and fee types including but not limited to; overdues, overdue recalls, lost items, document delivery fees and fees for photocopying or printing.	MR	
Provide facilities for the in person payment of fines and fees	MR	
Provide facilities for the online payment of fines and fees. Describe how this is achieved and any security standards that are implemented.	HDR	
Ability to create fines in real-time (e.g. while the item is still out increase the fine in the defined interval), or only at the point the item is returned.	MR	
Ability to provide library user with an estimate of their fine if they have book already overdue – i.e. if you return them today, the fine would be £xx added to your existing fines of £xxx	HDR	
Ability for authorised staff to manually create, waive, or forgive a fine or fee and record who carried out the action.	MR	
Support for custom fine or fee types to be created.	MR	
Support for the creation of a block on further borrowing for those exceeding a library defined fine and fee outstanding balance.	MR	
Display details for each fine or fee, e.g. the loan which incurred the fine, part payment(s)	MR	
Ability to accumulate fines and fees for payment in a single transaction	MR	
Allow payment in full or part against any individual fine or fee or against all fines and fees.	MR	
Ability to record reason for a fine, fee waiver, or any other type of charge.	MR	
Record the payment method (e.g. cash, debit card, serviced/self service) and date/time.	MR	
Ability to provide receipts of fines or fees paid (e.g. print, email and SMS).	HDR	
Cash management functions to enable balancing of income received on the system with that recorded on tills, by library	HDR	
Ability to set a default replacement cost for lost items.	HDR	
Ability to set processing/administration fees e.g. for lost items	HDR	
Circulation financial history be retrievable for a defined period by authorised staff.	MR	
Ability to allow refunds to be made and recorded.	HDR	
Circulation: Requests/recalls/holds management		

	Provide a flexible and customisable requesting system which works across multi-site libraries and differing loan periods, giving library users the ability to request the first available copy of an item or a specific item regardless of status, site location and format (print/online).	MR	
	Support for business rules that automatically manage library users' requests with staff mediation only when necessary.	HDR	
	Facility to automatically generate alerts to library users when requested items are available for collection.	MR	
	Request alerts to be generated automatically in real time or near real time, and the library user to be also alerted in their resource discovery service.	HDR	
	Allow title level (first available copy) requests	MR	
	Allow item category and copy specific requests	MR	
	Allow grouping of locations to satisfy requests.	HDR	
	Allow/disallow hold requests on items on order	HDR	
	Allow/disallow hold requests to be created for available items (i.e. on shelf) and alert staff at each site of hold requests for shelf check	HDR	
	Allow staff to record a rejection of a hold request with status 'not found on shelf' and for the library user to be alerted.	HDR	
	Allow for a default collection point to be specified which can be changed if required by staff/library users	HDR	
	Manage a list of valid locations for collection of successful requests.	HDR	
	Allow reduction of loan periods when there are outstanding requests on items and generation of recall notices for items on loan (recall item due back soonest or out on loan the longest).	HDR	
	Alert staff of a request on an item on return from loan and alert the requester that the item is awaiting collection, giving the location	MR	
	Allow for requests to be cancelled manually by staff/library users (with provision for reason).	MR	
	Ability for authorised library staff to change the order of the request queue for item.	HDR	
	Ability for authorised library staff to change the request type, e.g. change a copy specific request to title level, or vice versa.	HDR	
	Ability to set an expiry date for uncollected requests, with automatic alert to staff (to remove from request/hold shelf).	MR	
	Alert staff/library users if a request is awaiting collection, including its location, whenever the library user record is accessed.	MR	
	Allow creation of one or more locations for the collection of items or alternatively as a point for library staff to process items for posting to users.	HDR	
	Ability for a library user to collect an item from an open shelf and issue it to themselves without staff intervention whilst preventing other library users from successfully issuing an item from an open requests/holds shelf	HDR	

	Ability to print a hold slip / jacket for an item awaiting collection that would enable a library user to collect the item from an open shelf without providing information on the slip that would allow others to identify the requester.	HDR	
	Ability to track where an item requested/returned is, e.g. when requested from external store/other branch library.	HDR	
	Circulation: Bookings and short loans		
	Support for advance booking of resources (rooms, hardware, software, equipment) either directly on the system or via an interface with a bookings system using SIP2/NCIP standards	HDR	
	Ability to book resources in advance for a certain time e.g. As a library user I want to pre-book popular items for a certain date/time so that I can be guaranteed access to the item at that time.	MR	
	Ability for short loan periods to include hourly, daily or overnight loans. e.g. as library staff I want to be able to define e.g. a 10 hour loan (10 opening hours), or a 1 day loan (due 24 hours later regardless of closed time)	HDR	
	Self-service booking form by use authenticated library users.	HDR	
	Support booking of resources, including short loan items for a given date/time for library defined time slots.	HDR	
	Ability for the workflow to respond to status changes e.g. alert library staff of items that have been booked or send alerts to library users if an item is not returned on time. Describe the different processes in the short loan bookings workflow.	HDR	
	Circulation: Smart fulfilment		
	Support for smart fulfilment using a set of business rules making use of library user data and item data to determine the most effective fulfilment method. All options to fulfil a request to be presented to a library user via the resource discovery interface.	MR	
	If one delivery method is unavailable, the system workflow automatically moves to the next fulfilment method based on library-defined rules e.g. from physical item in stock to document delivery.	DR	
	Support for fulfilment of purchase requests submitted to the library via the resource discovery interface which will be routed into smart fulfilment.	DR	
	Support for smart fulfilment of requests via link resolution to appropriate electronic/digital/online resources.	HDR	
	Support for digitization on demand workflows.	DR	

	Circulation: Self service		
	Ability to interface with self-issue and self-return devices using appropriate/latest standards.	MR	
	Please specify standards used in circulation functionality and future road-map for full compliance with emerging standards. State level of compliance.	MR	
	Ability to process issues, returns and renewals from all self check hardware in use at institutions (as listed under High Level Requirements) and be able to support current functionality of self return bins.	MR	
	Ability for library users to access their library account via the self service devices e.g. items on loans and current fines/fees balance.	HDR	
	Ability to process fines/fees payments through the self service devices currently in use.	MR	
	Ability to report on all transactional data sent to and received from the self service units e.g. for troubleshooting.	HDR	
	Circulation: Project/group loans		
	Ability to group multiple items for issue under a single 'parent' identifier e.g. As an adult education tutor I want the ability to borrow a book box of items from the library so that my group of students can use them.	DR	
	Ability to issue/return items from the project/group loan individually e.g. As an adult education tutor I want the ability to borrow a book box of items from the library and issue them individually to library users so that they can use them and I can track where there are.	DR	
	Automatic return of the 'parent' item when the last on-loan item in the group has been returned	DR	
	Ability to unlink on-loan items from the project/group loan, so that the rest of the project/group loan can be re-issued	DR	
	Ability to produce a web-based or printed checklist of items in a project/group loan. e.g. As an adult education tutor I want a means to track some of my book boxes on paper so that I can track items in places where there is no internet connection.	DR	
	Circulation: Offline circulation		
	Provide back up procedures in event of system/network failure capable of handling all issue and return transactions with minimal disruption to services. Describe these procedures and how transactions are recovered as soon as the system is back online.	MR	

	Report on exceptions on recovered return transactions e.g. current requests or items on hold for staff intervention.	HDR	
	Allow application of varying due dates based on user group/item type groups once transaction data loaded into live system	DR	
	Alert library staff to any anomalies once transaction data loaded into live system, e.g. item taken out while somebody else has requested it	DR	
	Ability to force/schedule use of offline circulation, e.g. in case of expected network outage	DR	
	Circulation: Stock taking and inventory		
	Provide an inventory facility for physical resources, allowing the use of offline portable devices to store and upload a list of item identifiers (e.g. barcodes, RFID tags) to the system. Please provide a list of supported devices and file formats which will allow the import of inventory data into the system.	MR	
	Allow for inventory check against live system data using a portable wi-fi enabled web browsing device (e.g. Android tablet, iPad, laptop computer) and reporting inconsistencies in real time.	HDR	
	Allow for the separate inventory of discrete collections within each library.	HDR	
	Allow for the inventory function to account for items with specific item statuses which may not be present (e.g. on loan, on order) and prevent these from being included in any error or exceptions reports	HDR	
	Provide for the reporting of inconsistencies during an inventory, e.g. items shelved in the wrong location and / or collection, items found but recorded by the system as being on loan or otherwise unavailable, and identifiers which are not recognised by the system.	HDR	
	Ability to generate a list of items not found during a completed inventory, with the results to be sorted in library-defined order.	HDR	
	Ability to generate a list of items which are shelved in an incorrect order, but found in the correct collection and location	DR	
	Ability for items shelved in the wrong order but found in the correct location and collection to be kept separate from reports of other inconsistencies, and / or hidden if desired. (Explanatory note:we may wish to turn off this function if using a device such as an RFID wand which reads tags in a non-linear way)	HDR	
	Allow for items not reported during stock checking to be automatically sent to an appropriate workflow depending on library-defined criteria: e.g. infrequently used items to be sent for deletion, commonly used items to be sent for replacement purchase.	DR	
6.0	Selection and Acquisition		
	Selection and acquisition: General		

	Provision for acquiring print, non-print and online materials, including monographs and serials, with integrated financial management and supplier/vendor database.	MR	
	Support for different and definable financial years e.g. April-March, August-July.	MR	
	Supports electronic data interchange (EDI) in conformance with the EDIFACT reports and loading direct into existing order records standards	MR	
	Please detail which EDI messages are supported: <ul style="list-style-type: none"> • Purchase Orders • Order Fulfilment • Invoices • Credit Notes • Order Responses • Quotes • Claims • Recommended titles • other 	HDR	
	Describe the level of EDI integration possible with the following suppliers: <ul style="list-style-type: none"> • Amazon • Blackwells • Coutts • Dawsons • EBSCO • Houtschild • John Smiths Bookshops • Swets 	HDR	
	Ability to send approved orders via print/e-mail for non-EDI suppliers.	MR	
	Alerts based on information such as subscription dates, licence renewal dates, trial start dates, notice periods and locally defined actions, configurable and linked to widely used calendar or task list systems.	HDR	
	Manages the acquisition lifecycle irrespective of resource type such that: <ul style="list-style-type: none"> • an order that passes criteria will continue through the process with no staff intervention • library-defined criteria (such as incomplete order lines or prices above a threshold) will alert library staff where review is needed. 	HDR	
	Supports facilities for managing and tracking the payment of Author-Payment Charges (APCs) for open access, e.g. does the system allow monitoring of APC charges against subscription charges to evaluate the level of 'double-dipping' or the effectiveness of OA membership schemes/NESLi2 APC discounts?	HDR	
	Provides a method to manage prepayment.	HDR	
	Facilities for an auditable end-to-end online ordering process. The audit trail is maintained at all stages of the acquisitions process.	MR	

	Supports the import of order/bibliographic/licence data from suppliers/vendors, including supplier/vendor websites.	MR	
	Ability for library acquisitions staff to access external pricing at the point of purchase. As a library acquisitions staff member, I want to see pricing from external sources such as book suppliers, Amazon, Abe Books at the point of purchase so that I can factor price into my purchasing decision.	HDR	
	Enables input of bibliographic data for order records both by direct input and by use of imported bibliographic records at the order stage.	MR	
	Ability to integrate acquisition/selection processes with reading list management services e.g PTFS rebus:list, Talis Aspire, in-house or other. Please provide examples from current customers if possible.	HDR	
	Facilities for 'rolling over' subscriptions at financial year end according to library defined rules.	MR	
	Ability to create a library defined % price increase as part of end of year rollover.	HDR	
	Ability to predict estimated price for serials subscriptions based on payments paid in previous years.	DR	
	Facilities for tracking supplier/vendor performance at point of order. Please describe how this might be achieved.	DR	
	Allow for input to be corrected and amended at all stages, including 'undo' operations. As a member of acquisitions staff I want to be able to unreceive an item received in error with minimal steps so that I don't waste time unreceiving an item.	HDR	
	Selection and acquisition: Selection and deselection		
	Support for the ability to load supplier/vendor recommendations for purchase consideration. Selectors may then purchase, refer, reject or defer purchase.	HDR	
	Capability for the system to use analytics to automatically create selection requests or highlight items for deselection / withdrawal e.g. based on concurrent requests for items on loan, total loans over a period, total requests over a period, licence/renewal agreement expiry date, price increase above library-defined threshold and also whether a title has already been added to the selection queue by the process.	HDR	
	Ability for library staff and library users to enter selection requests into the system (e.g. via online forms) and route them to authorised staff to make a purchase/trial decision.	HDR	
	Support trials to evaluate electronic/digital/online resources before purchasing, including intelligence gathering (cost, consortium, title analysis, perpetual access, opt outs, price caps), management of participant feedback (individuals and groups) and other communication e.g. with suppliers.	MR	

	Approved selection items generate order records in acquisitions that have the potential to be automatically ordered, if they pass library-defined criteria (e.g., Selector role, price, and completeness of order line, ability to identify suitable supplier).	HDR	
	The system provides cost / usage analysis for library staff during an evaluation period, e.g library defined date range, trial period	HDR	
	Selection and Acquisition: Purchase, Gift, Deposit, Legal Deposit		
	Supports the following purchasing workflows: <ul style="list-style-type: none"> • Bundled orders • Prepayment • Print approval • Print firm order • Electronic/digital/online firm order (package or single-title) • Print continuations/subscriptions (package or single-title) • Standing orders • Electronic/digital/online continuations/subscriptions (package or single-title) • Gifts / no-cost acquisitions • Patron-Driven Acquisition (PDA) • Inter-Library Loans / Document delivery • Deposit items • Legal deposit items 	HDR	
	Able to automatically create purchase orders based on knowledge base packages or items.	HDR	
	Able to automatically create purchase orders based on supplier/vendor MARC records or other bibliographic records (Resource records on demand / Electronic Order Confirmation Record) for resources ordered from an external supplier/vendor.	HDR	
	Provides links from a purchase order to other related information such as invoice, supplier/vendor, licence and linked descriptive record.	HDR	
	Provide a workflow for the production of a range of library defined acknowledgements in response to receipt of deposits/legal deposits/gifts/no cost acquisition items.	DR	
	Enable library staff, throughout process, to see summary of current holdings (inc. in other formats) at institutional and consortium level.	HDR	
	Enable library staff, throughout process, to see summary of historic purchase information (inc. in other formats) at institutional and consortium level.	HDR	
	Selection and acquisition: Suppliers/vendors		
	Ability to maintain multiple accounts for a single supplier/vendor linked to a main vendor/supplier record	HDR	

	Ability to maintain multiple physical and email addresses for a single supplier/vendor, with the potential to tie these addresses to individual accounts	HDR	
	Ability to maintain discount and delivery information in the supplier/vendor record and link this information to individual orders	HDR	
	Allow required data, for example class mark, processing requirements, to be sent within the order to allow for print material to be received shelf ready. Explain your shelf ready process.	HDR	
	Supports supplier/vendor information files maintaining contact details and Supplier Address Number information.	MR	
	Selection and acquisition: Receiving/activating and unreceiving/deactivating		
	Allow for the receipt/activation of acquired resources	MR	
	Ability to receive/activate print, non-print and online items from both approved purchase orders, invoices, legal deposit claims and other acquired items	MR	
	Ability to automatically create new item records when an item is received (able to use bibliographic records including MARC records, from the bibliographic utility of choice together with invoice data and item data).	MR	
	Capability to claim or cancel orders and to store related correspondence or notes in the order record and alert library staff when an item has not arrived and allow for claiming of missed items	HDR	
	Provide alerts before accepting invoice data for items cancelled/charged to over committed funds.	MR	
	Ability for system workflows to route received items based on the completeness of their metadata and item information (i.e., to cataloguing, physical processing, or shelves).	HDR	
	Ability for the system, when requested to alerts library users when an item has been receipted and is available for loan.	HDR	

Provide workflows for the receipt of the following items: <ul style="list-style-type: none"> • Single title monographs (print/electronic/digital/online) • Serial monographs e.g. standing orders (print/digital/online) • Serial issues (print/electronic/digital/online) • Inter Library Loans/Document delivery (print/electronic/digital/online) • Patron-Driven Acquisitions (PDA) • Gifts / no cost titles (print/electronic/digital/online) • Multi part items e.g. book with CD • Multi part items split on receipt e.g. DVD box sets • Multiple copies of titles already in stock • Deposit items • Legal deposits • individual e-resources e.g. an electronic/online journal, ebook or database • package e-resources e.g. a publisher deal for a collection of ejournals or ebooks 	MR	
Ability to unreceive items received in error.	MR	
Payment confirmation to include currency adjustments as debits/credits to reflect actual price paid.	DR	
Selection and acquisition: Fund Management		
Real-time updating to fund balances (including commitments and expenditures).	MR	
Provision of a hierarchical fund structure that provides the ability to group and report on funds.	MR	
Support for optional fiscal year close processing and roll over the existing fund structure and outstanding orders and subscriptions to the new financial year.	MR	
Provide the following minimum fields for funds i.e.: fund allocation, expenditure Year To Date (YTD), commitment YTD, cash balance YTD.	MR	
Ability to export fund charges to spreadsheet for accounting purposes e.g. Excel, CSV	HDR	
Provide link to invoices committed against a fund.	HDR	
Support for updating commitment estimations for foreign currencies based on daily conversion rates for foreign currencies stored as a central service.	HDR	
Provides foreign currency conversion so that system records original currency as well as payment made when converted to Sterling.	HDR	
Ability to transfer money from one fund to another.	MR	
Selection and acquisition: Invoices and Payments		
Support the ability to create an invoice based on a purchase order.	MR	

	Support data integration/transfer between the library system and the institutional finance systems, eg. ability to output commitments and payments to institutional finance system, as well as the import of payment confirmation files.	HDR	
	Ability to deal with UK Value Added Tax (VAT) payments and changes to VAT rate	HDR	
	Ability to monitor expenditure via hierarchical grouping of fund codes, which allow for different groupings e.g. by faculty or type of material purchased	MR	
	Enable single order to be split across multiple funds	MR	
	Selection and acquisition: Renewals and cancellations		
	Provide support for institutional decision making ('cancellations lists'; 'renewals lists') including relevant information such as quantitative measures (e.g. usage, cost per view), notes, post cancellation terms from the licence, licence changes, changes in titles included in packages, and other relevant information.	HDR	
	Alerts to relevant library staff when key decision points are reached for resources (e.g. end date of current agreement, a local set date in advance of notice period).	HDR	
	Provide information about alternative deals known to be available when considering renewal or cancellation.	HDR	
	Support for limitations on renewal and cancellation decisions e.g. core titles (as defined by the publisher) not available for cancellation; do not allow cancellations to go above a specified percentage of print spend with the publisher.	HDR	
	Alert the relevant publishers and agents of decisions.	HDR	
	Set alerts for future dates when actions need to be taken e.g. as a reminder to check access post-cancellation; an alert to update holdings on relevant systems post cancellation.	HDR	
	Update access status as appropriate during renewal or cancellation.	HDR	
	Selection and acquisition: Shared selection and acquisition		
	Ability to create/read/update/delete subscription wishlists to be shared across the consortium to highlight opportunities for consortium purchases.	HDR	
7.0	Cataloguing / Metadata		
	Cataloguing: Standards and Formats		
	Comply with MARC21 and MARCXML.	MR	
	No limits on record, field or subfield size, or the number of fields in a record (beyond that imposed by the MARC format).	MR	

	Provide details of your ability to work with other data encoding standards such as Dublin Core and EAD.	HDR	
	Describe current and future provisions for working with new bibliographic frameworks such as RDF and BIBFRAME.	MR	
	Comply with RDA, AACR2, FRBR and FRAD.	MR	
	Indicate how the system can currently leverage RDA to display FRBR-ised data.	DR	
	What linked data opportunities are envisioned from emerging RDA and Bibframe developments? Indicate how this will allow data sharing beyond libraries.	HDR	
	Able to operate with multiple classification schemes, including Dewey, Library of Congress and National Library of Medicine, as well as local schemes, and be able to index/sort with these schemes.	MR	
	Support the use of unlimited multiple thesauri (e.g. Library of Congress, MeSH and other subject headings).	MR	
	Support ISO2108 (ISBN, current revision), ISSN, ISNI and ISMN standards.	MR	
	Cataloguing: Metadata Management		
	Provide facilities for creating and maintaining Bibliographic, Holdings and Authority records. Provide details, if any, of facilities available to bulk edit bibliographic and authority records, e.g. removal of GMD data, addition of RDA features.	MR	
	Allow extra library defined local bibliographic, holdings and authority fields to be created.	MR	
	Spellchecking functionality across commonly-used languages to aid the prevention of typographical errors.	HDR	
	Allow for the creation of library-defined cataloguing templates for different types of material, artefacts and types of record.	MR	
	Able to allow or prevent the creation of duplicate records. Explain how duplicate records are prevented.	MR	
	Explain how records are validated against library defined profiles.	HDR	
	Provide for online deletion of bibliographic records and describe how the system prevents deletion of a bibliographic record if it still has an item or order record attached.	HDR	
	Allow existing records to be copied and used as the basis for a new record.	MR	
	Provide a facility for batch and global update of bibliographic, authority and holdings item records.	MR	
	Allow the validating of URLs, URNs and other URIs in bibliographic records and holdings.	HDR	
	Provide a way of linking a single item record with several bib records ('bound withs') and explain how this is achieved.	HDR	
	Support real-time or near real-time updating of bibliographic data to resource discovery interface.	HDR	

What functions do you provide to aid the creation and editing of bibliographic records, e.g. global edit, auto save, undo, record lock?	HDR	
Provide an auto-save function when creating and editing catalogue records.	DR	
Cataloguing: Record Import/Export and Shared Cataloguing		
Provide the ability to import and export bibliographic and authority records from other sources (e.g.LoC, RLUK, OCLC, suppliers/vendors, VIAF and Summon) and explain how this is achieved, e.g. Z39.50, Bath profile, SRU,SRW protocols.	MR	
Provide the ability to batch export and import selected record sets.	MR	
Allow imported records, which match records already on the database, to overwrite or merge with those records, or be rejected, according to library-defined parameters.	MR	
Enable access to and sharing of bibliographic records from a system-provided shared knowledge-base(s).	HDR	
Provide the ability to locally export and import bibliographic, holdings and authority data in MARC21 format.	MR	
Cataloguing: Authority Control		
Support MARC21 authorities format allowing for the creation, editing and deletion of authorities records. Provide details of all authorities that can be created and managed, e.g. name, series, subject, title.	MR	
Alert library staff if deleting an authority still attached to existing bibliographic records.	HDR	
Allow access to authority records during bibliographic record creation for checking/selecting headings.	MR	
Allow display of records associated with an authority heading.	MR	
Provide that changes to authority records are approved across all records associated with that heading.	MR	
Cataloguing: Holding/Item Management		
Able to operate with multiple location codes, item types and borrowing statuses.	MR	
Allow unique item identifiers (e.g. barcodes, RFID tags) to be assigned to an item record.	MR	
Assign a replacement item identifier to an item.	MR	
Provide for copy and re-use of item data.	HDR	
No limit to the number of holdings or item records linked to the bibliographic record.	HDR	
Provide for marking of items/copies as withdrawn or deleted.	MR	
Enable relinking of item records to new/other holdings records.	MR	
Enable relinking of holdings records to new/other bibliographic records.	MR	
Provide for the deletion of items, holdings and bibliographic records.	MR	

	Prevent deletion of a bibliographic record, where it still has holding/ item record attached.	MR	
	Facilities for the local (site-specific) deletion of item records, according to access rights.	MR	
	Provide for suppression of bibliographic and holdings records from public display.	MR	
	Provide ability of automatic suppression of bibliographic records where all attached holdings records are suppressed from public display (ability to switch this feature on or off)	HDR	
	Facilitate the generation of library defined spine labels from cataloguing data or as sequential numbers following a prefix.	MR	
	Provide for the relocation of items between institutional library sites, and between institutions, preferably retaining usage statistics for the previous owning site.	DR	
8.0	Knowledge Bases for Print and Electronic/Online Resources		
	Knowledge Bases for Print and Electronic/Online Resources: General		
	Data in the Knowledge Base to be exposed via machine accessible interfaces (APIs). Please describe in detail how this is achieved.	HDR	
	Provision for integration with tools for the management of electronic/digital/online resources and licenses, including Knowledge Base+, GOKB and local home-grown sources in formats such as csv and txt. Please describe in detail how you achieve such integration.	MR	
	Integration with selection and acquisition workflows for past and present details of subscriptions. Please supply examples, e.g. activation of trials, renewals, deactivation of cancellations.	MR	
	Ability to import subscription data from subscription agents, e.g. Swets and EBSCO. Please describe any processes you have in place with suppliers to achieve this.	MR	
	Provide information about Knowledge Base coverage based on current resource coverage data supplied by institutions (see Annex 2, 'Knowledge Base').	MR	
	Ability to find resources in the Knowledge Base by the following; <ul style="list-style-type: none"> • Supplier/vendor • Title • Author • Package/Database Name • ISBN/ISSN/DOI/EISSN • Internal object id • Keyword Please indicate which of these fields are available in Knowledge Base search and also list any others.	HDR	
	Provide a test instance of the Knowledge Base for testing purposes.	MR	
	Provide RSS/API feeds from the Knowledge Base to be consumed by other institutional services to advise of downtime, renewal dates.	DR	

	Provide a community area in shared Knowledge Base. e.g. For reporting of issues, best practice hints, supplier/vendor contacts.	HDR	
	Knowledge Bases for Print and Electronic/Online Resources: Publication information		
	Knowledge Base covering subscription and 'free to access' collections, packages, works, titles, instances and relationships between these.	HDR	
	<p>Support for a Knowledge Base that represents print and electronic/digital/online covering subscription and 'free to access' collections. Specifically, support the following resource types in the Knowledge Base;</p> <ul style="list-style-type: none"> • electronic/digital/online journals (Individual online/digital journals, newspapers, and other serials; journal packages; selective packages) • single and multi-volume print monographs • digitised book chapters • physical journals • bound journal volumes • monograph series • databases (full text, A&I, datasets & maps, reference) • ebooks (individual, PDA, packages and databases) • composite e-resources, e.g. LION which contains full text book chapters, journals, reviews, images. • e-resource management tools, e.g. JUSP • research tools, e.g. RefWorks • repositories • web sites <p>Describe your Knowledge Base in detail with reference to the above. If you have separate knowledge bases for different resources, please explain why.</p>	MR	
	Knowledge Base for Print and Electronic/Online Resources: Holdings & Rights		
	Record of what specific parts (e.g. years, volumes) of publications an institution has the right to access.	MR	
	Enable print holdings to be recorded.	MR	
	Enable electronic/digital/online holdings to be recorded.	MR	
	Enable database access to be recorded.	HDR	
	Alert authorised staff when an electronic/digital/online package or title is activated or de-activated or holdings (archival/current/both) transfer to a different platform.	HDR	
	Activation/deactivation of a print/electronic/digital/online package or title results in the creation/deletion of these resources in resource discovery in real time or near real time.	MR	

	Enable linking of print holdings data to related metadata from database subscriptions e.g. As a library user I want to see where print full text is available of an article I found in an abstracts only database	DR	
	Ability for Knowledge Base to hold details of access at article level e.g. in hybrid open access/subscription journals.	HDR	
	Recording archival access rights at title and package level and other relevant information such as LOCKSS and Portico participation.	HDR	
	Enable embargoes (including rolling starting and ending embargoes) to be handled automatically.	HDR	
	Ability to mark which titles in a package are 'core' titles. e.g. As a subscriptions manager I want to mark 'core' titles as defined by a supplier/vendor so that we know which titles we can cancel without cancelling the whole package.	HDR	
	Knowledge Bases for Print and Electronic/Online Resources: Organisations		
	Knowledge Base to include organisational data on supply side (publishers), demand side (institutions and their divisions e.g departments/schools/colleges), intermediaries (subscription agents, archival platform providers) including key contact information. Please describe in detail which of the above is recorded in your system, and list any other organisation data your system is able to record.	HDR	
	Support for hierarchical membership linkages within organisations e.g. departments/colleges/schools within an institution.	HDR	
	Support for linkages between institutions e.g. consortium members.	HDR	
	Allow library staff to link their profiles to supplier records e.g. for notes and alerts. e.g. As acquisitions team manager, I want to know when the main contact changes for a supplier so that I can use the new information when I contact the supplier/vendor.	HDR	
	Knowledge Bases for Print and Electronic/Online Resources: KB update		
	Ensure that the necessary systems are updated when there are changes to publishers, platforms and access entitlements (e.g. change of publisher; additional titles in a package; new back files made available). Please provide information on how the Knowledge Base is managed and updated to provide accurate and timely information.	MR	
	Support for KBART file import and export of resource packages.	MR	

	Ability to manually or automatically export print/electronic/online packages or titles with associated metadata. Describe processes available to import/export data in order to support the print/electronic/online resources lifecycle.	MR	
	Ability to export a regular file to Google Scholar in the format required in order to provide up to date holdings to Google Scholar.	MR	
	Explain how deduplication is carried out as part of KB updates.	HDR	
	Explain the process for global deletions in the global Knowledge Base.	HDR	
	Provision of reports for global Knowledge Base updates including additions/amendments/deletions for both packages and titles.	HDR	
	Ability to allow/disallow Knowledge Base updates to override local changes made to scripts/parsers for a package or title.	MR	
	Ability to automatically activate new titles added to a package.	HDR	
	Ability for library staff to customise whether new titles are automatically added to a package and transfer/ceased titles are automatically deleted from a package.	DR	
	Knowledge Bases for Print and Electronic/Online Resources: Licence management		
	Create/read/update/delete both digital documents and terms expressed in structured format for model/standard licences, variants and addenda covering licences past, present and under negotiation. Please describe how your system achieves this.	MR	
	Ability to manage licenses and amendments, including ability to attach Microsoft Word, Microsoft Excel, PDFs and URIs associated with the licence. e.g. scanned copy of licence or correspondence with supplier.	MR	
	To create/read/update/delete the internal statuses of licences as they are checked, approved and signed by appropriate representatives (within an institution and by other relevant agencies).	HDR	
	To create/read/update/delete alerts related to the internal status of licences (e.g. to create a reminder to chase a signatory to a licence if not processed within a set timescale).	HDR	
	To create/read/update/delete alerts related to the term of licence agreement (e.g. date on which licence term ends).	HDR	
	Provide tools to report on licensing terms and compare licences.	HDR	
	When viewing licences, the ability to display only those fields that the library uses in a licence record.	DR	
	Ability to link the constituents of a package to the licence terms of that package.	MR	
	Ability to track the status of a licence and its negotiation process.	HDR	
	Ability to manually create licence records.	MR	
	Ability to create a licence record as part of the selection and acquisition workflow.	MR	
	Ability to record notes relevant to licence management against a licence.	MR	
	Ability to update a licence and the titles/packages linked to it e.g. a change in terms, additional titles covered by a licence.	MR	

	Ability to alert nominated staff regarding expiry of licences before the expiry date, and to alert staff of any conditions associated with renewal.	HDR	
	Make licence information available to other functional components of the system e.g. selection and acquisition and resource discovery.	HDR	
	Support the ONIX-PL schema for licences.	MR	
	Record terms of post-cancellation access and provide relevant information (e.g. details of the 'subscription period' which defines post-cancellation rights).	MR	
	Record restrictions on cancellation (e.g. requirement to maintain certain level of print spend, or replace certain titles with others).	HDR	
	Ability to link multiple resources to a single licence. e.g. As a library staff member I would like to have a single record for a model licence and to be able to link this record to multiple packages so that we can maintain the model licence in a single place.	HDR	
	Record terms of Partner Organisation access and provide relevant information (e.g. fee schedule, terms and conditions).	HDR	
	Licence information to enable restriction of the display of content in the discovery layer to only authenticated and authorised members of certain library user groups. e.g. I am a library user from an overseas campus and only want to see the material I am entitled to access.	DR	
	Knowledge Bases for Print and Electronic/Online Resources: Service monitoring		
	Record and report interruptions to access to resources and other service issues (e.g. caused by supplier/vendor server downtime); driven by both central monitoring and local reports.	HDR	
	Ability to manually enter details of technical workarounds, temporary issues and resource advisories for display to library-defined groups of users	HDR	
	Facilitate RSS feeds to populate locally hosted networking software to advise of downtime	DR	
	Knowledge Bases for Print and Electronic/Online Resources: Local KB		
	Ability to hold and customise Knowledge Base metadata at local level drawing metadata from global knowledge bases as required.	MR	
	Ability to create local records for packages/titles that do not exist in the global knowledge base	MR	
	Ability to locally customise scripts/parsers which provide connections between the Knowledge Base and OpenURL linking.	MR	
	Ability to locally override global coverage data for a title in a package.	MR	

	Ability to import knowledgebase metadata into locally held templates including pre-populated fields and mandatory fields. e.g. As an E-Resource Manager I want to import metadata from Knowledge Bases and match to our own templates. This enables me to identify and pre-populate licence fields based on resource type with standardised text that is mandatory or widely applied across all resources, e.g. 'authorised users' statements, contact email address for licence queries, simultaneous users.	DR	
	Knowledge Bases for Print and Electronic/Online Resources: Reporting		
	Identify by reporting partial or complete overlaps between packages subscribed to by an institution.	MR	
	Provide reporting mechanism to query and alter incorrect data within Knowledge Base.	HDR	
	Knowledge Bases for Print and Electronic/Online Resources: Shared Knowledge Base		
	Provision of a global Knowledge Base of print/electronic/digital/online that is shared across the wider community.	MR	
	Ability to access and share metadata for print and electronic/digital/online resources across institutions in a consortium.	MR	
	Ability to hold and customise Knowledge Base metadata at consortium level drawing metadata from the central knowledge base as required.	MR	
	Ability to record holdings and access to consortia/other shared agreements and negotiated acquisitions.	HDR	
	Ability to store institutional metadata in a local Knowledge Base and *not* contribute it at the consortium/community level.	MR	
	Through aggregating information across institutions, inform effective collection management ensuring minimum unnecessary duplication across institutions; identifying gaps in holdings across the sector and offering institutions insight into others activities. e.g. As collection manager, I can see when another institution has successfully converted to e-only access for a serial title.	HDR	
	Record of what specific parts (e.g. years, volumes) of publications a consortium has the right to access with these holdings/access rights being cascaded to the institution level.	MR	
9.0	Document delivery and Inter-library loans		
	Document delivery: General		

	Document delivery and ILLs to be integrated with the rest of the system, including resource discovery (for library users to input requests and view request progress).	HDR	
	System support for the ISO 10160/10161 ILL protocol.	HDR	
	Support for the current procedures, workflows and formats specified by the British Library Document Supply Centre (BLDSC). Please describe your approach to working with the BL to ensure current and future compatibility with their ILL system, and how the costs for any changes are managed.	MR	
	Automated communication with the BL ILL systems.	MR	
	Provide a function for the management of digitisation requests under the CLA Licence, including deposit of materials and management of permissions requests.	DR	
	Provide an integrated document delivery module with the ability to view requests from other modules, e.g. circulation.	HDR	
	Integration with circulation to manage lending of items to library users, including setting of loan periods, sending overdue notices, fines. e.g. As a member of library staff, I want to view records of library user ILL material loans alongside that user's loans of print material.	HDR	
	Describe how the system integrates with resource discovery systems.	HDR	
	Ability to grant permissions to groups of library users to use document delivery services.	HDR	
	Ability to include authorisation steps in the document delivery workflow. Please describe how the inclusion of authorisation steps in the document delivery workflow is achieved.	HDR	
	Support for management of document delivery requests from other libraries for our own items including the circulation control of those items.	HDR	
	Records for supplying libraries are searchable by code and library name.	HDR	
	Ability to customise the format and content of document delivery notices, e.g. provide multilingual notices.	HDR	
	Ability to archive completed requests with access for authorised staff for a period defined by the library, and to be searchable. e.g. As a library staff member, I need to retain ILL data for 7 years to comply with copyright requirements.	MR	
	Document delivery: Request process		
	Ability to allocate a unique request number as each request is created on the system.	MR	
	Ability to add supplier/vendor unique request reference number if required.	MR	
	Allow creation of a prioritised list of potential suppliers and allow automatic routing of requests to the supplier/vendor able to deliver.	HDR	
	Ability to create a barcode for issue purposes on loanable items.	HDR	
	Ability to check eligibility to place requests (by library user group) and recognise any blocks on the library user which may prevent the request.	HDR	

	Allow a system limit to be set on the number of concurrent requests from any library user (by library user group), with an overall limit over a library-defined period of time.	HDR	
	Provide a range of customisable templates for entering requests (for monographs, serials, serial articles, theses, conferences, unique materials).	HDR	
	Provide the ability for a library user to read and agree to a copyright declaration.	DR	
	Capability for secure online submission of requests by library users. Please describe process for library users to place online requests.	MR	
	Allow library users to specify a collection point for physical items.	HDR	
	Allow library user requests to be created by importing data from other services e.g. OpenURL data and resource discovery records.	HDR	
	Allow library staff to amend the bibliographic and other request details before and after transmission of a request.	HDR	
	Allow for checking requests against local collections and other libraries within the ILL workflow.	MR	
	Allow for the creation of library defined and prioritised groups of libraries or collections against which to check.	HDR	
	Allow for special requirements to be added to requests, e.g. loan essential, translation only.	HDR	
	Ability to handle urgent requests, e.g. phone requests, and suppress transmission of the request concerned.	HDR	
	Allow automated checking of document delivery/ILL requests against own library catalogue at point of library user sending request, with immediate feedback to the library user as to where they can find the item.	HDR	
	Allow automated checking of document delivery/ILL requests against other specific open access and freely available targets (e.g. Google Scholar) so that requests can be fulfilled from existing stock or freely available stock (with primary target own library catalogue).	HDR	
	Allow library staff to access the request record in a number of ways, including from the bibliographic record.	HDR	
	Ability to view ILL items from a single user on loan, outstanding requests, request progress reports and request status and full request history in one location.	HDR	
	Ability to sort requests by a variety of fields including request number, create date, submission/transmission date, last modified date, fund, requester, library, status.	HDR	
	Support for the electronic transmission of requests to BLDSC via protocols specified by the organisation (e.g. ARTEmail) and the option to print or e-mail requests to other libraries if required.	HDR	
	Ability to detect and report transmission errors in requests.	HDR	
	Ability to amend and retransmit request files.	HDR	
	Ability to change lenders for outstanding requests.	HDR	
	Ability to revive a cancelled request or to re-request a wrongly-supplied item.	HDR	
	Ability to suppress document delivery/ILL items from resource discovery.	HDR	

	Ability to automatically re-apply to BL for material e.g. As a document delivery team member, I often have to re-apply in response to BL needing more information).	HDR	
	Record and make available to the BL (where applicable) the requester's postal and email addresses for the direct delivery of photocopied articles and electronic/online items.	HDR	
	Ability to view request history for each request.	HDR	
	Recognise standard BLDSC report codes and translate them to appear as text on the system.	DR	
	Allow free text reports to be input and for standard reports to be amended as necessary.	HDR	
	Ability to generate reports (i.e. from supplier/vendor alerts) for requesters, lenders and library staff, which may be printed, e-mailed, and/or displayed on resource discovery (for library users).	HDR	
	A library user initiated digitization request triggers an alert and a pick slip at a specific digitization location.	HDR	
	Document delivery: Receiving and lending		
	Record the receipt of all document delivery items e.g. photocopies/Secure Electronic Delivery for retention and items for loan or use in the Library (with date of receipt automatically recorded).	MR	
	Record fulfilment of non-receipted document delivery items.	HDR	
	Ability to "unreceive" an item where it has been received incorrectly (e.g. as a photocopy instead of a loan), or received in error	HDR	
	Ability to amend the supplying library if different from the library from which the item was originally requested.	HDR	
	Record the direct delivery of documents to the library user e.g. from BLDSC (as reported by BLDSC).	HDR	
	Produce requester's address in label format for sending out document delivery items.	DR	
	Allow for ongoing control of reference and loan items (issue, renewal, recall, return, overdues, fines) via the circulation function, with specific parameters for such items, e.g. loan periods, fines, notices.	HDR	
	Allow a default due date to be set for each lending library (library-defined) for loan items, and for 'issuing' items to be used in the library.	HDR	
	Take account of closed days when calculating return dates.	HDR	
	Ability to create a loan period that includes both a return date and an automatic extension (subject to recall) in line with lending policies of other institutions e.g. BLDSC lending policy.	HDR	
	Requester is alerted on receipt of an item, with details of collection point, due date, renewal conditions, and whether item is for use in the library only.	HDR	
	Alert library staff if an item has not been collected within a library-defined period of time.	HDR	

	Document delivery: Renewals		
	Able to hold details of receipt and loan of materials and manage the manual and automatic renewal of loans.	MR	
	Allow for the transmission of the renewal request to other libraries.	HDR	
	Ability to trigger renewal notice option for users.	DR	
	Document delivery: Chasing and cancellations		
	Generate and record automated chasers according to library-defined parameters including in response to supplier/vendor alerts.	HDR	
	Ability to prevent automatic chasers on specific requests.	HDR	
	Ability to generate manual chasers on specific requests.	HDR	
	Option to allow for document delivery requests to be cancelled by library staff.	MR	
	Allow for logging the reason for the cancellation.	DR	
	Option to generate cancellation notices to suppliers and requesters (e.g. items on a British Library waiting list).	HDR	
	Document delivery: Charges and funds		
	Ability to record charges imposed by document delivery suppliers.	MR	
	Support for deposit and billing accounts.	DR	
	Ability to setup multiple accounting methods for one supplier.	HDR	
	Allow funds to be set up for document delivery/ILL which are integrated with acquisitions funds.	HDR	
	Capability to recharge and record charges/renewal charges for both library users/cost centres in	HDR	
	Support budget allocation, voucher system and invoicing split by department/section.	HDR	
	Document delivery: Loans to other libraries		
	Provision of a facility for loaning to other libraries.	HDR	
	Control of loans (issue, renewal, recall, return, overdues) using library-defined parameters integrated with fulfilment policies.	HDR	
	Document delivery: User communication		
	Alert to requesters to advise on the following – arrival, renewal confirmation/refusal, delay, recall, overdue, request for further information, status of requested material (e.g. library use only).	MR	
	Alerts to library users to be viewable by library staff on library user record.	HDR	

	Ability to alert library users of status of request of material e.g. library use only.	HDR	
	Alerts sent to library users by e-mail or print, and also appear to library users' in resource discovery.	HDR	
	Document delivery: Shared systems		
	Support for document delivery between institutions.	DR	
	Option for institutions to participate or opt out of any resource sharing schemes.	DR	
10.0	OpenURL linking and resolution		
	Ability to use institutional host names for services.	HDR	
	Please describe your approach and solution to OpenURL link resolution.	MR	
	Support for OpenURL 1.0.	MR	
	Backward compatibility with OpenURL 0.1	MR	
	Support for the presentation of options where an OpenURL resolves to a number of possible items.	MR	
	Ability to customise the OpenURL resolution interface/menu offered to library users based on a library-defined lists of preferred/weighted full text resources. e.g. As a library system manager I want to be able to define the priority order of full text resources that are presented to our users. For instance, full text e-journal packages should always be presented first, then full text aggregator databases and then e-journal archives.	HDR	
	Ability to customise the OpenURL resolution interface/menu to offer library users a full menu or a link direct to a resource based on a set of library-defined rules, e.g. if no full text, display link to document delivery service e.g. As a library system manager I want to have the flexibility offer a full range of options on the interface/menu or a direct link to the 'best' option as selected by the library-defined rules.	HDR	
	Capability of the system to augment the OpenURL metadata content. e.g. As a library user I want metadata to be enhanced via CrossRef where this metadata is available.	HDR	
	Provide the ability to export data to other sources from the library user interface/menu. Please explain how this would be achieved. e.g. As a library user I want to be able to export data from the interface/menu to a reference management database.	HDR	

	Ability to configure proxy service for use with OpenURL linking (EZproxy, OpenAthensLA proxy, WAM).	MR	
	Provide an API service to allow the OpenURL menu data to be displayed inline on other web pages. e.g. As a web developer, I want to ability to call the OpenURL menu live data from an API so that I can display the menu in resource discovery instead of needing to store this data in the resource record.	HDR	
	Ability to display the full text availability of both online and print holdings which match data in the OpenURL. Describe how the system looks up coverage for both print and online holdings to decide what options to display in the menu.	HDR	
	Describe error reporting facilities that are available in the OpenURL library user menu. e.g. As a library user, I want to complete a form with my contact details and a note explaining an issue I am having with accessing the content in the menu. Library staff should then be alerted to my issue and provided with data about the issue so that they can respond.	HDR	
	Ability to display additional fields and information drawn from the LMS in the OpenURL resolution panel as required. e.g. As an OpenURL administrator, I would like to be able to offer library users relevant additional information in the OpenURL response panel that assists with resource discovery, e.g. warnings about embargoes or scheduled downtime.	HDR	
	Ability to retain current service name and hostname for OpenURL service to avoid migration issues.	HDR	
11.0	Management information and analytics		
	Management information and analytics: General		
	Inbuilt web-based reporting and analytics tools which allow Library staff the ability to generate reports and queries.	MR	
	Ability to design, build, save, edit and run complex queries that combine multiple fields in the underlying database.	MR	
	Ability to run searches across all database tables and fields.	HDR	
	Ability to export query data into a variety of formats, in particular CSV, TXT and Excel. Please describe how query data can be exported.	MR	
	Ability for export formats to preserve Unicode.	DR	
	Management information and analytics: Reports		
	Ability to run reports on all the data held within the system, including but not limited to the following broad report types:		

	Holdings information, e.g. numbers of titles and copies by source supplier/vendor; classmark range; date of publication; date of acquisition; date and type of cataloguing; date of circulation;	MR	
	Workflow analysis e.g. time to order books from suppliers/vendors, number of books catalogued by date / operator;	HDR	
	Financial and budget reports e.g. current/committed spend per fund, spend per resource type;	MR	
	Stock control information e.g. long overdue items; items reported missing;	HDR	
	Circulation and user information e.g. most popular books; most requested titles; usage of items on reading lists; loans by department; numbers of renewals/loans by self-service/ staff interface; transactions by hour / minute of day; transactions by library user;	MR	
	Interlibrary-loan and document delivery information (e.g. requests sent/received, outstanding requests, items currently loaned to other institutions, average time from request to supply).	HDR	
	Ability to automate the generation of reports, with an ability to schedule reports to run at set times, as well as to automatically send copies in the form of spreadsheets, charts, or raw data, via scheduled emails.	HDR	
	Ability for the system to maintain and display 'at a glance dashboards' of key indicators for different operational areas.	HDR	
	Ability for library staff to configure various dashboard reports tailored to their needs.	HDR	
	Access to a range of pre-configured reports, written to cover common query types.	HDR	
	Access to pre-configured SCONUL reports.	DR	
	Ability for library staff to create reports that are only visible to them.	HDR	
	Ability for library staff to share reports with others e.g. As a library staff member, I want access to an area where I can publish reports. Other library staff should be able to run or amend my reports.	HDR	
	Ability to list all scheduled reports, with details on schedule, when last run, who they get sent to (or ideally to create custom views to navigate through lists of reports).	HDR	
	Ability to use previous report outputs in new reports e.g. As a library staff member, I want to produce a list of items for another library staff member to work through and then return to me.	DR	
	Allow Crystal Reports to be used as an additional reporting tool.	DR	
	Allow Business Objects to be used as an additional reporting tool.	DR	
	Management information and analytics: Data and query design		
	Ability to share query design with other institutions, to reduce the overhead of building standard or specialist queries from scratch.	HDR	

	Ability for selected Library staff to view the underlying data tables through a variety of routes (APIs, SIP2 protocols; database connections; SQL; web service XML), allowing us to display and use information directly in third party applications and systems.	HDR	
	Ability to track when reports are run and by whom, with an ability for the Library to limit access to particular report types, datasets, or fields, based on staff profiles.	HDR	
	Ability to load data taken from third-party systems, for example usage statistics for e-resources, or cost data from Library suppliers.	HDR	
	Ability to configure automated harvesting of e-resources usage data from third-party systems, especially for e-resources.	HDR	
	Support for SUSHI protocols.	HDR	
	Ability to combine harvested data with system data, to produce analysis reports. e.g. As a library staff member, I want to combine e-resource usage data with cost data recorded in the system, to produce cost-per-use reports.	HDR	
	Retain circulation information after deletion of library user data, including but not limited to the following information: titles issued, lost, overdue, fines created/paid, library user group info and department.	HDR	
	Management information and analytics: Shared		
	Ability to report on resource usage on a consortia level.	HDR	
	Ability to share query design with other consortia members, to reduce the overhead of building standard or specialist queries from scratch.	HDR	
12.0	System architecture and security		
	System architecture and security: General		
	The system should have response times averaging < 1 second for viewing pages or accessing read-only APIs, < 3 seconds for a catalogue search, < 5 seconds for the checkout of a catalogue item and < 10s for updating account data, to be met under the peak load of all Consortium members.	MR	
	If we need to add/remove capacity, what are the options for scaling up, down or out? Provide costs and lead times.	MR	
	Describe the routine tasks (e.g. data purge) required in order to maintain the performance and scalability characteristics above, given the expected lifetime of the implementation. Describe how will the tasks identified be triggered, who is responsible for performing them, and what impacts might be expected on the system if they were not performed.	HDR	

	<p>The system should be unavailable to users for less than 1 hour per calendar year. Please state typical periods of unavailability expected to be experienced by users during upgrades. If cloud hosted, please give recent uptime figures.</p> <p>As a minimum, the system must be completely available to users during normal office hours (08:30 - 17:00 GMT/BST) M - F excluding UK Bank Holidays. All scheduled outages should be outside of these hours.</p> <p>Describe how the system proposed is engineered, managed and operated to meet or exceed these requirements.</p>	MR	
	<p>The system and its interfaces must be wholly addressable via a fixed set of URLs that are unique to a given client or tenant, in order to allow whitelist filtering. The preferred solution is that all required URLs for a given institution would be rooted under the same Authority Component (as defined in RFC 2396); for example, all URLs could be of the form "https://librarysystem.cardiff.ac.uk/xxx/yyy".</p>	HDR	
	<p>URIs/URLs should be clean, readable and shareable via copy/pasting (i.e. not reliant on session data). URIs that are often copied from a browser and pasted into a document should not have to extend over multiple lines because this makes a document difficult to read if it is full of them. Persistent URIs are needed because pages in a system often get moved around and re-structured so, it should always be possible to refer back to them. Give a typical example of front-end URLs of content item in the system.</p>	HDR	
	<p>The set of URLs required must be subject to Change Control procedures such that the customer is able to update URL whitelists before URLs are used within the system</p>	HDR	
	<p>Supplier to provide details of any specific network / security requirements to enable access from secure networks e.g. identify ports used by the system that may need opening - it is preferred that all access be via HTTP or HTTPS on the standard ports tcp/80 and tcp/443. Confirm that these are also subject to Change Control procedures so that customers can be advised to update firewalls before such requirements are changed.</p>	MR	
	<p>Any information transmitted to, or received from, a Payment Gateway Provider secured via HTTPS.</p>	MR	
	<p>Personal data encrypted during transmission (SSL or TLS).</p>	MR	
	<p>The system must have sufficient logging or monitoring to detect and alert operational errors, and ideally predict them. State what type of information is available to the institution(s) and how it is accessed, for example, via log files or JMX/SNMP traps.</p>	MR	
	<p>It should be possible to restore a known configuration state of the system. State how configuration for the system is managed and how this would be achieved.</p>	HDR	

	<p>The system must use institutionally managed usernames and passwords for authentication and must not transmit user credentials unencrypted over any network. The preferred method for authentication differs across institutions but include Shibboleth, OpenAthensDA, LDAP and barcode+PIN mechanisms. Logins that use federated authentication mechanisms should ensure that account creation within the system is done automatically so that users are not logged into an "empty" account. Give details on the methods available and which is preferred by you if multiple options are available.</p>	MR	
	<p>Some institutions may need to use multiple authentication methods, because of differing user groups. For example University users might have a Shibboleth or LDAP account, but hospital users might have a library barcode and PIN. Describe how such multiple authentication methods may be used.</p>	HDR	
	<p>With the exception of library barcode and PIN, whatever authentication method is used should not require credentials to be presented directly to the system, or to be stored within the system. If this is necessary then describe how credentials are protected from interception, leakage and brute force attacks, as well as the mechanisms available for an institution to disable access to any given account.</p>	HDR	
	<p>The system should use role based authorisation. The preferred method is for authorisation to be based on assertions from the authentication source, e.g. SAML assertions or LDAP groups. Please state how role-based authorisation is performed, along with any caveats.</p>	HDR	
	<p>Describe Single Sign-On approaches that the system supports and that have been implemented for other customers.</p>	HDR	
	<p>Strong passwords should be supported. State which characters are permissible within an account's password, with specific focus on any characters that are not usable.</p>	HDR	
	<p>Authentication should work on mobile interfaces, if different to the web interface. Describe any authentication limitations.</p>	HDR	
	<p>A flexible and detailed role-based access and security model is required. This will need to encompass a range of users, from individuals to senior management, and from those who have ownership of/responsibility for existing corporate data to those who will use the data and reports to assess the implications of various strategic decisions.</p> <p>Describe how the system allows the set-up of specific rights to specific roles and allocates access rights to various functions and data items (e.g. read/write access, access by user or group, field, record and screen level security). Provide details of all the roles and responsibilities available through the access management of the system. Describe how this may be extended.</p>	MR	
	<p>The system should have the ability to allow a user with administrative privileges to impersonate another user for debugging purposes. Describe how this is achievable and auditable.</p>	HDR	
	<p>The system should have the ability to secure information in transit across a network. Describe how this is achievable.</p>	HDR	

	<p>The API for creation, suspension and deletion of library staff and library user accounts should be:</p> <ul style="list-style-type: none"> • Fine grained • Programming language agnostic • Per event, as opposed to batch input • Atomic operations which provide feedback on success/failure of action <p>Describe what API is available, give code examples and confirm that it is possible to create or update 10000 users within 24 hours using the API.</p>	MR	
	<p>Ability to purge predefined sets of data, either manually or automatically via a pre-set schedule according to data retention schedules and policies, in order to prevent the Library from unnecessarily storing the personal data of staff or students. This should be done in a manner that preserves the ability to report on key management information pertaining to circulation, while allowing for personally identifiable data to be removed. Please describe how this can be achieved and whether additional cost or configuration is required.</p>	HDR	
	<p>Provide management of the browser cache and logout or timeout (OWASP-AT-007). https://www.owasp.org/index.php/Testing_for_Logout_and_Browser_Cache_Management_(OWASP-AT-007)</p>	HDR	
	<p>The system should be free of OWASP top 10 vulnerabilities and the supplier should indicate whether they carry out regular penetration tests. https://www.owasp.org/index.php/Category:OWASP_Top_Ten_Project</p>	MR	
	<p>Operation and delivery of the service must be managed using an ISO27001 compliant Information Security Management System (ISMS). Please state whether the proposed service's ISMS has been certified to ISO/IEC 27001:2013.</p>	MR	
	<p>Describe the scope of the proposed service's ISMS.</p>	HDR	
	<p>Including any subcontracts used to deliver the service, provide any details on past security breaches or incidents leading to the leakage of data or financial loss. State whether you or your subcontractors have had to make a security breach notification to the UK ICO during the last five years, and if so, provide details.</p>	MR	
	<p>System architecture and security: Business continuity</p>		
	<p>The system must have a comprehensive backup and restore process in case of a hardware or software failure.</p> <p>Please state how the system is backed up and subsequently restored and the Recovery Time Objective and Recovery Point Objective that this will deliver; the desired RPO is that zero transactions will be lost. Describe your backup strategy and retention policy, and how these are implemented and tested.</p>	MR	

	Backup and recovery policy for the system including performance information in relation to transaction logging, backing up, recovery time and retention policy	MR	
	Provide protection to enable business continuity in the event of incidents of system failure where recovery to the last working point is required, for example by providing failover to a second datacentre. Describe how such protection is achieved, what the process is for invoking the measure and how long is required to implement it.	MR	
	In the event of local or supplier level system downtime, or failure, provide a function capable of handling transactions in offline mode. Identify the transactions handled.	HDR	
	Describe the backup infrastructure that would deliver the achievable Recovery Time Objective and Recovery Point Objective.	MR	
	Describe the options available for partial recovery of deleted or corrupted data and/or transactions, and the cost model for such requests, e.g. I want to recover data that was accidentally purged last week, but I do not want to roll back the entire system.	HDR	
	Describe the tools available to maintain the data integrity of the system, including (but not limited to) checking the validity of data items at the time of data entry. Confirm that data integrity reports can be generated by, or provided to, the university as required. Describe and provide examples of the reports available.	HDR	
	An audit trail must be maintained for all changes and additions made to the system, when they are made and by whom. Specified users will be able to report on audit data including searching by user, action, date and time. Describe and provide examples of the audit reports available. Describe your retention policy for these logs.	MR	

--	--	--	--

WHELP - Shared Library Management System Operational Requirements Annex 1 Optional Discovery - Confidential

PF=Pass/Fail, MR=Major Requirement, HDR=Highly Desirable Requirement, DR=Desirable Requirement

Ref. No.	Requirement	Requirement Rating	Supplier Response
13.0	Resource discovery (Optional)		
	Resource discovery: General		
	Provide an overview of your resource discovery system and how it is integrated with the back office library management system.	MR	
	Describe how the system imports or accesses institutional metadata records and other institutional data for resource discovery. Please describe how you would maintain consistency with the source data and support real-time or near real-time updating of bibliographic data on the Discovery interface	MR	
	Describe how the system ingests and presents data from multiple metadata sources to resource discovery, based on library-defined parameters	MR	
	Describe any unique capabilities available by using your resource discovery system in conjunction with your proposed library resource management system.	MR	
	Describe any capabilities which are not available when using your resource discovery system with the back office library management system of other suppliers/vendors.	MR	
	Describe your approach to resource discovery across a range of devices. Identify any add-ons required to support functionality with specific devices e.g. device 'apps'.	HDR	
	Library users should be able to access all resource discovery functionality across browsers including but not limited to the following: Google Chrome, Internet Explorer, Apple Safari, Mozilla Firefox, Google Android Browser. Describe any limitations.	HDR	
	Describe in detail any searchable index of scholarly materials which is provided as part of your resource discovery system.	MR	
	Provide full details of the agreements which you have in place with publishers/aggregators to include their materials in the searchable index including scope and frequency of updates. Please include coverage of any known exclusions, e.g. publishers who have declined to allow their content to be included.	HDR	
	Describe the level of metadata in any central index provided and any enrichment provided (e.g. TOCs).	MR	
	Ability to provide resource discovery interface in additional languages including but not limited to; Welsh. Explain the process by which additional languages are created and how translations can be updated as the resource discovery system evolves.	MR	
	Ability for library users to indicate their preferred language when interacting with the system.	HDR	
	Ability to switch language and remain on current page in the resource discovery interface.	HDR	
	Ability to handle languages that require entry of characters from right to left in resource discovery search forms.	HDR	
	Ability to handle entry of Unicode characters in resource discovery search forms.	HDR	
	Resource discovery: Interoperability		
	Ability for the user to initiate services from resource discovery including but not limited to the following: digitization on demand, Patron-Driven Acquisition (PDA), document delivery/ILL requests and access to items on a reading list service. Please identify which of these services you are able to provide and explain how the processes work.	MR	
	Ability for library users to be able to access all their library account information (e.g. fines, loans, requests) outside resource discovery interface. e.g. Student hub, Virtual Learning Environment.	MR	
	Provide a mechanism to embed a resource discovery interface to search and present results in other environments, e.g. Student hub, VLE.	MR	
	Ability to have multiple customizable resource discovery views/interfaces. e.g. for kiosks for walk-in users	HDR	
	Orders to be visible within the resource discovery interface in real time or near real time after they are placed on the library management system.	HDR	
	Describe how you display real time circulation data about items in resource discovery.	MR	
	Resource discovery: Navigation		
	Ability to include contact details for frontline services and/or the opportunity to provide feedback as required at various points in the interface.	HDR	
	Ability to provide links to other institutional services as appropriate within the interface e.g. archives service, repository.	HDR	
	In the event of a zero result set, or unsatisfactory results, provision of guidance on expanding or redesigning the search.	HDR	
	Resource discovery: Personalisation / personal account		
	Optional ability for online user self registration by providing a customisable form, or a mechanism so that the library can setup their own online form e.g. Where permitted, library users will register online via an online library defined registration form. National Library of Wales uses a postcode checker to create All-Wales access to e-journals for registered National Library users.	MR	
	Ability to limit personal information displayed in library user record. e.g. not display contact details.	HDR	
	Ability to change library user PIN number from library user account if PIN option is activated.	HDR	
	Authentication to resource discovery to not require an additional login to access personal details over and above institutional login.	HDR	
	Library users can request renewal of all items or selected items they have on loan and following a successful renewal to be informed of the new due date of the item.	MR	
	Library users can view information about items they have on loan, saved searches, pending/fulfilled requests and fines/fees outstanding, and borrowing history.	MR	
	Library users can pay a fine/fee from their library user account, e.g. a library user can be securely passed from the discovery layer, to a third party payment gateway in order to pay fines/fees by credit/debit card. A successful payment to then pass back details in order to update the user's account accordingly.	HDR	
	Library users can associate a 'Home' library with their library user account. This can be used as a default location for collection of requests and to assist in sorting their results	HDR	
	Ability to produce personalised item recommendations for authenticated library users based on data about them e.g. course/modules of study, type of student/staff, level of study.	HDR	
	Ability for library users to post mediated reviews and ratings.	DR	
	Ability to be alerted to the arrival of new items (as defined by library user) by date of arrival, subject area or classmark range e.g. by RSS feed or web page.	HDR	
	Library users can form virtual networks and communities to share/receive item recommendations.	DR	
	Ability to interface with other social networking tools such as Twitter and Facebook, e.g. send a tweet from the system when you've read a book.	HDR	
	Describe any gamification features (for example, OpenBadges or LibraryGame) provided.	DR	

	Ability for library users to create, read, update and delete favourite items in their library user account.	MR	
	Ability for library users to create, read, update and delete searches in their library user account.	HDR	
	Ability for library users to review and run saved searches at a later date in their library account.	HDR	
	Ability for library users to setup alerts to re-run their saved searches automatically and email the results.	HDR	
	Ability for authenticated library users to tag records for individual and group use.	HDR	
	System administrators to be able to read, update and delete content created by library users in resource discovery, e.g. reviews, tags.	MR	
	Resource discovery: Search		
	Describe how the resource discovery system supports an integrated search of different resources including but not limited to; local catalogue, archive and digital records, remote resources.	MR	
	If the system supports federated search, describe how new or changed connectors are managed in the system.	HDR	
	Provide options for refining searches and other advanced search functions to help library users improve the specificity of their results and to expand their search to retrieve more items, e.g. facets, alternative search terms	MR	
	Ability to apply a pre-search limit to particular libraries and/or institutions.	HDR	
	Provide post search facets for library users to refine their results by collections, library, location within a library, format, call number, author/corporate author, language, genre, region and year of publication.	MR	
	Please identify from the following list how library users can browse titles alphabetically; <ul style="list-style-type: none"> • subject • author • title • call number/classmark 	HDR	
	Pre-search facets to allow a user to browse across a broad subject area, e.g. Library of Congress headings.	HDR	
	Library users can use truncation and wildcards to refine searches. Describe truncation and wildcard searching functionality	MR	
	Provide spell checking functionality for searches throughout the resource discovery interface.	MR	
	Provide an advanced search option, which allows use of Boolean logic, selection of fields to be searched using different search terms and pre-limiting of the search by broad subject area, year of publication, language and format. Describe what is available.	DR	
	Ability for search strings containing misspelt terms to prompt "did you mean" alternative search suggestions, and present an option to the user to return results that include suggested alternative search terms.	HDR	
	"Did you mean" available for multiple languages	HDR	
	Ability for searches to include synonymous terms not included in the entered search. A search results summary makes clear to users that the search includes synonyms.	DR	
	Synonyms available for multiple languages.	HDR	
	Describe options for adding thesauri in one or more languages that will enable the "Did you mean" and synonym points above.	DR	
	A history of previous searches carried out during the current browser session is available to the library user until they log out or close their browser.	HDR	
	Provision to include indexed tables of contents, abstracts and other searchable enriched content, e.g. Syndetics ICE or similar	HDR	
	Provide details of any onscreen help functions available.	DR	
	Resource discovery: Search results		
	Provide relevance ranking for search results. Describe how the ranking is carried out by the system.	MR	
	Ability for the library user to change the sort order by relevance ranking, date descending/ascending, call number, author, title.	HDR	
	Later editions of monograph titles to rank above earlier ones so that library users see the later ones first.	HDR	
	Results should be deduplicated where appropriate. Describe how deduplication is carried out in resource discovery, and how duplicate records are highlighted and presented in search results.	HDR	
	Library users receive a list of matching items as they type their search terms.	DR	
	Library users can sort search results alphabetically, by subject, author, title and by call number. Please list all sorting options that are available with particular reference to the above list.	MR	
	Ability for library users to export items in their favourites or in result sets to a range of formats and services including but not limited to; print, email, RIS, RefWorks, Refworks Flow, EndNote, EndNote Web. Please list all record options, with particular reference to the above list.	HDR	
	Where records in search results originate from external sources, the origin of each record is displayed and is available as a hyperlink.	HDR	
	Record format to be indicated by a text label or icon, e.g. print/online book/journal; AV cassette, DVD, CD, legal deposit.	HDR	
	Record displays for physical items to include location and real time availability information, and links to make requests for the items if library defined conditions are met e.g. As a library system manager I want to see a request link for physical items in resource discovery if items are 'requestable' as defined by the library. For example, if no copies are available on the shelf that are borrowable.	MR	
	Provision of information on multiple copy availability. e.g. 20 in stock. 10 currently available.	HDR	
	Ability to display copy numbers (where present) for multiple items.	HDR	
	Ability to display a suitable library customisable map for a physical item showing the location of the item.	HDR	
	Ability to display a suitable library customisable map for a physical item down to the level of shelving bay based on metadata about item i.e. library where it can be found and its classmark or shelfmark.	DR	
	Search records include alternative fulfilment options e.g. interlending options, Google Books, WorldCat, Amazon.	HDR	
	Support predictive fulfilment e.g. 'not currently available, will be available in 3 days'.	HDR	
	Support for smart fulfilment based on information available to resource discovery including information about an authenticated user e.g. user type, user 'home' location.	MR	
	Describe options for presenting users with ability to refine results sets by type, e.g. Available in the library / Peer reviewed resources / Resources with full text availability	HDR	
	Provide functionality based on data internal to the system for library users to see items that are similar to an individual title they are viewing in order to aid their discovery process. e.g. As a library user when I find a title I want the system to show me other similar items based on the metadata for that item so that I can discover further relevant items.	HDR	

	Integration with or provision of recommender services, e.g. 'if you liked this, you may also like this', or 'people who borrowed this, also borrowed this...'. Please outline any partnerships in place to provide recommender services within the system if it is not your own product.	HDR	
	Resource discovery: Requests/Fulfilment/Delivery		
	Library users can place a title level request on a monograph title.	MR	
	Library users can place a volume/issue level request on a serial title so that they can obtain the item.	MR	
	Library users can place inter library loan (ILL) or document delivery requests for items not held within the local catalogue.	HDR	
	Requests to be accepted if the library user doesn't already have a copy of the item on loan.	HDR	
	Requests to be accepted if the library user doesn't have a current request for the item.	HDR	
	Library users can cancel a request on a title/item and receive confirmation that this has been successful.	MR	
	Library users can see when an electronic/online resource with restricted simultaneous access will next be available, and request a time-slot for reading online through the discovery interface without having to visit the suppliers website.	DR	
	Resource discovery: Record display detail		
	Ability to see the "raw data" of a record, e.g. MARC, DublinCore, or XML view of a record as appropriate.	HDR	
	Text labels to be fully customisable to allow the creation of accurate and consistent labels in the resource discovery interface.	HDR	
	Ability to configure the look and feel of record display page including the ability to decide which bibliographic metadata to display.	HDR	
	Ability to offer user functionality developed from RDA. e.g. ability to display relationships between FRBR entities on RDA records. Provide details of how search result displays will function in an environment containing both AACR2 and RDA records.	HDR	
	Provision to include book covers, tables of contents and other links to enriched content in the record display page.	HDR	
	Ability to create permalinks / deep links to individual records and result sets.	MR	
	Resource discovery: New items		
	Provision for the production of new book lists by location.	HDR	
	Support for RSS (and other) feeds for new items.	HDR	
	Library users should be able to view new items in the discovery interface by date of arrival, classmark range, or library.	DR	
	Resource discovery: Authentication		
	Provide information about the authentication protocols that your resource discovery system supports, including but not limited to: <ul style="list-style-type: none"> • IP based authentication • LDAP • OpenAthensLA (Eduserv) • Shibboleth • Library barcode and PIN from the LMS • EZProxy (OCLC) • WAM Web Access Management (Innovative Interfaces Inc) 	MR	
	Provide information about the granularity of authorisation available in your resource discovery system including but not limited to; ability to enable/disable library user groups ability to access certain functions and resources. e.g. As a system administrator I want to be able to grant access to licenced electronic/online resources to authorised user groups such as institution staff and students, but to deny such access to un-authorised user groups such as visitors, alumni, or NHS users, who should only be able to access circulation functions such as place hold/recall, renew loans.	MR	
	Resource discovery: Interfaces		
	Provide process for local branding for all resource discovery interfaces (not over-written by each upgrade, including retention of local settings). Please include examples of customisation from current customers if possible.	HDR	
	Resource discovery interfaces for collections/subjects.	HDR	
	Describe the functionality available in administrative interfaces provided for resource discovery.	HDR	
	Provision of a range of search interfaces from simple and intuitive for novice users, through to advanced functionality for "power" users.	HDR	
	Ability to provide timely and relevant information to users in the event of any network or system failure e.g. loss of network connection or loss of connection to real time availability data.	HDR	
	Resource discovery: Shared resource discovery		
	Ability to search a single resource discovery interface covering all consortium members, clearly identifying item location in search results.	MR	
	Ability to search a single resource discovery interface selecting two or more institutions from the consortium.	MR	
	Ability to form 'virtual' groups of libraries or collections across Wales as targets for searching (e.g. all Health Libraries).	HDR	
	Ability for library resource discovery user to configure and store personalised groups of institutions for resource discovery.	HDR	

Term	Meaning	Used instead of...
A&I	Abstracting and Indexing	Abstracting and notification
alert	Action directed to a person or a role	Application
API	Application Programming Interface	
authorised staff	someone working for an institution with permission to carry out an action.	
BL	British Library	British Library
BLDSC	British Library Document Supply Centre	British Library
cancel	To end an agreement allowing access to a resource within the constraints set out by the agreement (e.g. notice periods). This often equates to a	
CLA	Copyright Licencing Agency	Copyright Licencing
courtesy notice	A pre-overdue notice to warn users in advance when items are due.	pre-overdue notice,
create	CRUD	add
delete	CRUD	
digital asset/item	A digital asset is any text or media that is formatted into a binary source and includes the right to use it.	
etc	Do not use - better to say e.g. or just leave out.	
fulfilment	apparently, this is the British spelling - but please check again which one is the preferred one...	fulfillment
hold request	A request where the item is flagged for a library user without the item being recalled.	reservation
ILL	inter-library loan	inter-library loan
institution	one or all of the Consortium member institutions	organisation
library user	a user of the library service.	user, patron (unless
library-defined	A length of time defined by the library services at an institution.	
licence	A document that contains all the terms and conditions of use associated with that resource, detailing what can and can't be done, by whom, for how	
multi-lingual	to be used in public-facing interfaces instead of just bilingual	
Patron Driven	Acquisition of items for the library driven by library user demand.	User Driven
read	CRUD	
recall request	A request where the item is called back from a library user.	
renew	To extend an existing agreement, or enter into a new agreement, allowing access to a resource where the existing agreement is expiring.	
requester		requestor
SAN	Secure Area Network	Secure Area
supplier/vendor	An enterprise that contributes goods or services in a supply chain	supplier, vendor
update	CRUD	edit
VLE	Virtual Learning Environment	Virtual Learning