Consortium Library Services Platform RFP

Editor notes:

We will be working with the CO Contracts group to bring this text into the standard CO RFP Template with several pages of front matter, mostly with boilerplate language.

We will be defining two scopes of work: One for 'management' functionality, and the other for 'discovery'. This gives us the freedom to award separate contracts for the back-end and front-end aspects of the system.

Overall intent and outcomes desired

About the CSU libraries

With 23 campuses, almost 437,000 students, and 44,000 faculty and staff, the California State University (CSU) is the largest system of senior higher education in the United States. Each CSU campus has its own library with unique collections and services designed to help meet the educational mission of the CSU. The CSU libraries also have a strong tradition of collaboration. Through the Chancellor's Office, the libraries license $5 million in electronic content as part of the Electronic Core Collection (ECC) shared by all 23 campuses, and license an addition $10 million in electronic content negotiated by the Chancellor's Office on behalf of campuses on an opt-in basis. The Chancellor's Office also funds and manages a number of system-wide services for resource sharing, virtual reference, and digital library projects, including a shared link resolver (SFX) and discovery system (Summon).

Current environment and its problems

Today, the CSU libraries run a variety of different systems for managing print and electronic resources (see Appendix A). Historically, each campus and the Chancellor's Office have made independent decisions when purchasing these systems, leading to unnecessary overlap and incompatibility between them. This has led to a number of problems, particularly in the area of electronic resources management, including:

- Duplication of work – staff must enter and update e-resources data in multiple systems.
- Lack of consortium capabilities – each library must separately enter the same e-resource information for system-wide collections (i.e., ECC and opt-ins) into their local systems.
- Lack of system-wide analytics – CSU libraries are unable to easily compare print or licensed electronic resources across the CSU system to facilitate campus and/or system-wide collection development decisions.
- Missed opportunity costs – the above problems lead to significant staff time allocations and the inability for libraries to reallocate this time to emerging or evolving priorities.

At the same time, we recognize that the vendor marketplace is changing. All of our current vendors are developing next-generation library services platforms that bring together the management of both print and electronic resources into more cohesive and comprehensive systems, in most cases with significant, new consortium capabilities. These new library services platforms will eventually displace the older generation of ILS and ERM systems currently in use in the CSU.

Major Goals and Requirements

The CSU libraries are eager to take advantage of this situation to collectively select and implement a consortium library services platform. We expect this new system will allow us to eliminate current

inefficiencies, gain new consortium capabilities, and provide the CSU with an innovative and forward looking service provider and development partner committed to continually improving their platform and services to better meet our needs.

The system must be:

1. Operational

The CSU is looking for a system that will be operational for the acquisition, description, management, and circulation of both physical and electronic resources with integrated workflows for all resources in an organized and efficient manner. The system must be capable of supporting the entire lifecycle of a library resource from acquisition through access, licensing, administration, support, and evaluation activities. The system must displace our current ILS systems, ERM systems, and link resolvers with a comprehensive system that eliminates the need to enter duplicate information into multiple, stand-alone systems.

2. Hosted

The CSU libraries are looking for a reliable, scalable, Cloud-based system that eliminates the need for local servers, data storage, and disaster recovery. We prefer a system with browser-based staff clients.

3. Provide robust consortium capabilities

As the CSU libraries move to manage their many collections together, we require a system that will support an infrastructure of shared records that allows the libraries and the Chancellor's Office to collaboratively manage electronic resources and print collections. The system must also support the analysis and assessment of usage and other data elements and collection information across all CSU campuses.

4. Allow for local autonomy

It is critical that the system be flexible enough to allow each campus to administer their collection data differently should they so choose. At their discretion, campuses should be able to override or opt-out of inherited data from shared records, change local configuration options, develop local workflows, and otherwise make decisions independently from the group in all areas of the system whenever appropriate.

5. Integrate well with outside systems.

Each CSU campus has unique business requirements, and many CSU libraries are members of regional, direct-borrowing (INN-Reach) consortia. The system must support flexible options in dealing with a variety of local campus systems, purchasing systems, and other third-party applications. The system must provide a robust set of application programming interfaces that allows the CSU libraries and other interested parties to develop new functionality.

6. Facilitate discovery of all library resources

The system must provide end-users with a simple, intuitive, and integrated search of each library's local print and digital collections, as well as the world of journal articles, dissertations, and other research data, covering the vast majority of the library's electronic collections. Each CSU campus requires its own discovery system, and will need to be able to configure and customize the system to meet local preferences. Alternately, the system must integrate with other third-party discovery systems should the CSU choose to implement a different system.

7. Facilitate efficient resource sharing

The CSU seeks a system that facilitates the discovery of books across all 23 CSU campuses and enables resource sharing as if each institution were a member of a single, large, multi-branch library system. The system also must give each campus the ability to participate in consortia such as Link+ or the Circuit, which allow unmediated, patron-initiated interlibrary loan with non-CSU libraries.

8. Promote multi-faceted, data-driven decision-making

The system must provide advanced data analytics with reporting capabilities that are user-friendly, intuitive, and standardized yet allow for customization. In general, the system's analytics capabilities must support evidence-based decisions on the impact of library services on users, collection development and management, and access and discovery.

Electronic Resources Management, Cataloging, & Acquisitions

Requirements

The work product of technical services staff is a point of service for library patrons, providing access to materials in all available formats in the most efficient way possible. The CSU libraries are seeking to minimize repetitive technical services staff tasks performed at the local level that can be done more efficiently as part of a single shared system. A large part of this greater efficiency and flexibility will be the sharing of data among local sites to manage collection development and resource management in a shared database.

The system should:

- Include essential technical services staff functions and operations currently available in, and common to Integrated Library Systems, including acquisitions, cataloging and both print and electronic management capabilities.
- Offer flexibility and extensibility to allow the consortial sharing, viewing, editing and exchange of records of all types as well as the ability for individual institutions to locally control and customize those same record types.
- Offer a robust and feature-laden ERM application to allow for the efficient and effective management, analysis, and evaluation of e-resources.

Collaboration

Describe or Demonstrate:

- What type of records can be shared across institutions to streamline workflows (bibliographic, authority, order, check-in, item, license, patron, fiscal, vendor, etc.)
- How dynamic and flexible record sharing is, and the ease or difficulty of changing sets of records from local control to shared control, and vice versa.
- How the system supports the ability of libraries to perform cooperative collection development in a shared environment through access to common files of on-order materials, cancelled subscriptions, circulation data, check-in records, etc… in a shared environment. For example how are local sites made aware of what other libraries are purchasing, and still limit the sharing of confidential financial agreements or other confidential information? Would the system allow local sites to be notified automatically when another library cancels a publication or de-accessions a title to which both of them subscribe or own?
- How the system will handle access to local and consortial fund and vendor codes in a shared environment.
- How each site will handle local information (e.g., binding information, donor information, electronic bookplates, processing notes, etc.) in a shared environment.

- How the system will allow for the management and maintenance of a shared bibliographic and authority control database, so that individual campuses can derive bibliographic and authority records centrally or from other campuses.
- How will local sites' links to electronic resources be stored and displayed in a shared environment?

System Integration

Describe or Demonstrate:

- The system's integrated workflow from resource selection to circulation. Demonstrate this for both physical and electronic resources and how workflow functions can be automated.
- The interaction, movement, and editing between system components (acquisitions, cataloging, serials, electronic resources, interlibrary loan, fiscal, public discovery interface, etc.). Does the system provide seamless interaction between all components?
- The system's ability to display modifications bibliographic records, circulation status, etc.) in the discovery layer in real-time.
- How the system supports the integration between interlibrary loan and acquisitions to provide support for purchase-on-demand programs.
- How the system integrates with book, periodical, and other content and coverage providers.
- The system's ability to develop and maintain local, customized workflows for tangible and electronic resources.
- The system's support for automated reminders, ticklers or alerts, for workflow tracking, renewal reminders, claims, system outages, bindings, etc.
- The system's notification functionality. For example, Can the system automatically email staff or patrons when an item is received (print materials) or activated (electronic materials)?

Acquisitions Management

Describe or Demonstrate:

- How the system supports the acquisitions workflow, including, but not limited to, ordering, receiving, invoicing, claiming, payment, etc.
- How order data is stored in relationship to bibliographic and item data.
- The system's support for automated selection, ordering, invoicing, and claiming, using standards like EDIFACT and X12. Demonstrate how these transactions can be completely automated. How is data sent and received in this manner integrated with acquisitions, serials management, and financial modules? How does the system check for duplicate records or transaction errors?
- The system's ability to input and output data and records using FTP, API or other data exchange standards.
- How the system allows and supports processing of the above functions with vendors who do not support Electronic Data Interchange (EDI) transactions.

- The system's ability to import bibliographic records individually or in batches from a vendor, including, but not limited to, the automatic creation of order, invoice, and/or item records from data supplied by the local site.
- The system's support for ordering and claiming, including, but not limited to, print and electronic submissions and what electronic submission protocols are supported.
- The system's ability to manage subscription renewals within the system.
- How the system supports the creation of brief bibliographic records for ordering purposes. Conversely, demonstrate how the system supports non-purchased materials, such as gifts that require a bibliographic record but do not necessarily have an order or invoice record.
- The fund structure for acquisition payments and the invoice creation and payment workflow. Demonstrate the system's ability to provide the following functions related to funds and payment history:
  - Suppress and archive unused fund codes;
  - Keyboard shortcuts within funds;
  - Export all fund displays and reports to CSV or Excel;
  - Assign multiple funds to a single order;
  - Assign dollar amounts, not just percentages, on multi-fund orders;
  - Customize, archive, and retrieve fund activity history for a minimum of 3-5 years;
  - Display all orders and invoices associated with a fund code for a user specified period of time;
  - Encumber, disencumber, adjust, and expend funds; including the ability to close out a partial purchase order;
  - Sort and display funds in multiple ways;
  - Any limits to the system regarding number of funds, invoice payment lines, number of electronic invoices or limits to fund codes in terms of length and character type;
  - The system's ability to handle multiple currencies and perform accurate, automatic balances adjustments in your home currency according to global exchange rate updates.
- The system's support for storing and sharing vendor data for both physical items and electronic resources and how it is retrievable, customizable, and used in different functional areas.
- Does the system allow for multiple entries in various fields?
- The system's ability to integrate with campus/state financial systems (PeopleSoft/CMS), including, but not limited to, the export and import of financial transactions such as payment of invoices by various methods, in multiple standard formats.
- How the system will handle taxes for material purchasing. Will the system be capable of paying taxes at different tax rates based on where the item is received/housed/paid? Will the system be able to track tax-exempt status?
- The system's ability to provide the following functions related to tax and use tax:
  - Calculate and set different use tax percentages;
  - Accrue sales tax by line item when invoice is input;
  - Change percentage on use tax and ability to apply use tax to "none", "some", or "all" items on an invoice (paper or electronic);

- o Differentiate different types of tax;
- o Remove VAT functionality;
- o Adjust tax percentages as local taxes fluctuate, without vendor intervention.
- The system's financial reporting functionality, including, but not limited to, granularity of data retrieval and level of local and consortial customization, without need for vendor or local customization.
- The system's support for fiscal-year closing functionality. Will the system be capable of closing by a variety of fiscal-year options? (For example, biennium versus calendar year, current year and previous year funds.) In what format and for how long can fiscal close records be retained?
- What records or data are stored in the system from acquisition processes and for how long. Can local sites choose custom retention periods for specific kinds of data? What kind of audit trail is available? Are reports available in print and electronic formats for storage? For how long are reports available?
- How data can be extracted across record types, including, but not limited to, order, vendor, item, and bibliographic records. Describe data fields that are not available for export via CSV, Excel or PDF.
- Describe the system's ability to provide automated activation of electronic resources (eBook, eJournal, databases, etc.) at the time of ordering.

Serials Management

- In general, describe the system's support for material management at the issue level; including receiving, item generation, labeling, routing, claiming, and binding.

Check-in

Describe or Demonstrate:

- The system's ability to manage current receipts of active subscriptions and standing orders. This includes the ability to embed hyperlinks to occasional digital content in print subscriptions, to store and retain internal or external notes, and to set alerts as needed.
- The system's serials check-in software support for automatic issue prediction and the ability to turn the feature off on a case-by-case basis, if so desired.
- Describe the solution's support for the creation, the storage, editing, and re-use of the full range of chronology and enumeration captions, and publications patterns as defined in the MARC 21 Format for Holdings Data (MFHD) for check-in purposes.
- Demonstrate the solution's ability to set up prediction patterns for serials with irregular frequency using the full range of frequencies (MARC 85x $w) and the regularity pattern (MFHD 85x $y), or other methods.
- The system's support for the check-in of multiple instances of a given title; for example, one subscription to a title might include individual issues, bound volumes, pocket parts, pamphlet supplements, special issues, legislative service, and possibly other parts, each received on a

regular or irregular basis. Describe how each of these parts can be accommodated and distinguished, either within a single record or on separate records.

- The system's support for recording and receipt of issues via SISAC and/or UPC codes.
- The systems' support for complete automation of serials check-in electronically, without staff intervention, using EDI.
- How the system's serials check-in system can automatically update the MARC 21 holdings record, including all content related to the 85X/86X paired fields, either during receiving or as a separate function.
- The ability to gather check-in records by MARC fields and subfields or use regular expression.
- The system's support for display of current receipt status from the check-in system (e.g., received, expected, claimed, missing, etc.) in the public interface.

Claiming

Describe or Demonstrate:

- The system's ability to identify claimable issues and to send claims individually or in a batch. How is staff informed that an issue is claimable?
- How an expected issue becomes claimable. How does the system support for manually escalating claims as needed or to setting different time periods between subsequent claims without affecting the overall prediction patterns.
- The system's support for a direct interface with vendors' systems for serial ordering, renewals, binding, and claiming; especially, EDI invoicing and claiming.
- The system's support for integration of serials claiming across workflows and functions. Specifically describe the ability to view claim status from other records and to update check-ins and holdings, or to place a replacement order for a failed claim.

Binding

Describe or Demonstrate:

- The functionality of identifying and collapsing serial binding units. Does the system provide automated alerts for serial binding?
- The system's binding capabilities for serials and for monographs.
- The system's ability to identify and alert which issues are ready to bind.
- How the system's binding support works with bindery vendors.

Item record

Describe or Demonstrate:

- How the system supports the processing of physical materials, including support for spine label printing either through the system itself or via a third party. How are these processes scaled at both the consortial and local levels?

Electronic Resource Management (ERM)

A successful system will be able to support various electronic acquisitions and management models and provide tools for managing information associated with these purchases at local, supersets of local and consortial levels. The system must support existing national and international standards for electronic resource management.

Electronic resource record

Describe or Demonstrate:

- The type of record used to manage electronic resources? If the system utilizes a "resource record," define what information will be captured in such records?
- The structure of records. Are there features or fields to describe the relationship between related electronic resource records, such as part of a package, or a merger of multiple packages? Is this a non-bibliographic "database or package level" record used to attach acquisition information and ERM data or is this also a bibliographic record with MARC fields? If bibliographic data is provided, are CONSER standards followed?
- How electronic resource management records link to and interact with other resource records as well as license, order, and administrative/contact information.
- How electronic resource records comply/do not comply with the Digital Library Federation Electronic Resource Management Initiative's (DLF ERMI) data elements.
- The system's process for updating records and performing coverage updates using external data. How are individual titles "matched" to incoming external data and identified for updating? How are multiple ISSNs/ no ISSNs and alternative titles handled?
- The system's ability to support the creation, updating, storing, displaying, and reporting of internal and public notes for electronic resource management records.
- Describe if the system indexes electronic resource data separately from normal bibliographic data. How is the electronic resource data displayed to the public if desired?

Knowledgebase

Describe or Demonstrate:

- If the system includes a knowledgebase and how the system uses this knowledgebase throughout the system. How does this knowledgebase support both local and consortial information?
- How the knowledgebase can be managed centrally for shared resources on behalf of local sites, yet allow local sites to override or opt-out of inherited data from the central knowledgebase.
- If the system interoperates with external agencies or software (e.g. LOCKSS).
- The system's ability to reduce duplication of work by providing a single knowledgebase for all aspects of electronic collections including the ERM system, link resolver, and discovery system.
- The source and process of obtaining metadata for electronic resource records in the knowledgebase, including titles, databases, and coverage information. How is the knowledgebase updated? How frequently? Do the system's software and staff, without a local site's intervention, perform the updates?
- The process by which the system is able to link to full text content and upload title lists from a third party source (e.g. publisher/aggregator).
- The process by which resource activation takes place in the knowledgebase and when and how the resource is made available in the discovery layer.
- How the knowledgebase identifies and deals with journal title and coverage data changes.
- The system's ability to alert local sites of knowledgebase changes. How does the system support and respond to customer requests for metadata corrections or the addition of new resources?
- The system's ability to support data migrated from another knowledgebase. What are the required match-points (e.g. ISSN, OCLC or other number) for a successful migration? Can the system export both local electronic resource holdings and consortial holdings?
- The types/formats of electronic resources the system can or cannot manage and provide content access to. Examples include e-journals, e-books, reference databases, image archives, online encyclopedias, videos, sound recordings, streaming videos, etc.
- How Patron Driven Acquisition (PDA) eBook vendors will work with the system to automatically update holdings and how the process can be automated through the life-cycle of the material.
- The system's specific ability to update titles in PDA eBook packages. For example, if PDA packages are enabled at either the local level or consortial level how will the system automatically make content for that package available to end-users? As end-users select titles and those become a permanent part of a collection, how does the system automatically update holdings either locally or consortially?
- How these records for each site will support eBooks and eBook chapter linking. How will records be updated: edits, deletions, duplication of titles, and duplication of titles among different package providers.
- Ability to provide seamless access to both local and consortial collections to users, including, but not limited to, its unique digital resources.

License record

Describe or Demonstrate:

- The structure and functions of the license record, and how they comply with DLF ERMI standards.
- The system's support for the management of license agreements at a local and consortial level. How are consortium and local licenses (and related documents) are stored and displayed in the system.
- Fields available for license terms and how these can be integrated into other areas of the system: what is the system's support regarding license term mapping?
- System's ability to display the terms of use and restrictions, both as a public notice, and for staff, at the database/package level and at individual title level.

System Administrative/Contact Information:

Describe or Demonstrate:

- The system's ability to manage a variety of administrative information for electronic resources on both a local and consortial level.
- The system's ability to manage contact information for vendors and publishers on a local and consortial level and whether the system allows for multiple entries in various fields.

Workflow management

Describe or Demonstrate:

- How the system supports a workflow management process for electronic resources: this may include reminders for renewal, the ability to track new resources from trials to setup, 'handoff' capabilities between staff during processes and alerts for delayed setup and access.
- Workflow procedures system for patron-driven eBook management.

Link Resolver

Describe or Demonstrate:

- How the system's link resolver manages electronic journals that do not have ISSN. Describe how the system handles journals that have multiple ISSNs.
- How the link resolver handles 10-digit and 13-digit ISBNs.
- How the link resolver provides for customization in the display of options in the link resolver menu: e.g., prioritizing the order of databases or excluding a database from the menu even if there is full text available from that database.
- What mechanism the system employs for users to submit feedback if a link is not working.

- Any services provided by the link resolver other than full text linking and interlibrary loan.
- How the knowledgebase works with the link resolver and how it integrates with the electronic resources functionality of the system.
- The system's ability to generate an A-to-Z title list with subject browsing functionality.

Description and Metadata

Cataloging

Describe or Demonstrate:

- That the e system is capable of importing and exporting bibliographic, holding, and authority records in MARC 21 Format and future frameworks from various external sources (e.g., OCLC Connexion, MARCIVE, publishers, etc.).
- How the system supports cataloging tasks, including, but not limited to, editing, importing, deleting, suppressing, transferring, overlaying, and linking records. Describe how the system performs duplicate record detection.
- How the system provides tools in support of cataloging tasks (e.g., ability to create templates, macros, use a MARC editing tool to edit or batch process records).
- How the system performs batch import, export, and processing of records.
- How the system manages multiple classification schema and subject vocabularies, including, but not limited to, Library of Congress Classification and Subject Headings, Dewey Decimal Classification, SuDoc classification numbers, local classification schema, National Library of Medicine Subject Headings, etc.
- How the system handles input of characters in non-roman scripts (e.g., Chinese, Japanese, Korean, Cyrillic). Describe how diacritics are stored, displayed and input. Include any specific requirements for peripheral hardware or software to ensure this support.
- How the system supports display of Unicode characters in all aspects of the system.
- The system's support for bidirectional cataloging and support for bidirectional script display (e.g., Arabic, Hebrew).
- All metadata schemas that are supported and describe how they are implemented. Describe any crosswalk tools or utilities that will convert from one metadata schema to another.
- How the system allows staff to load records from multiple sources using any metadata scheme (standard and non-standard).
- How the system supports unique local data needs within a consortial environment of shared records. Demonstrate how the system will support and protect local notes, access points, classification schemes, and other unique metadata while synthesizing it into a consortial database.
- Plans for implementing RDA, including adjustments to the MARC format, and how the system will incorporate those changes to enhance the user experience, including the clustering of records based on the Functional Requirements for Bibliographic Records (FRBR).

- How the system establishes and maintains a permanent association between digital objects and associated metadata.
- How records are indexed within the system. Describe any fields or record types that are not indexed. Are there any limitations that affect indexed data or the indexing of data contained within the system?

Holdings Management

Demonstrate or Describe:

- The system's support for holdings records which are fully compatible with current MFHD standards, including the export and import of holdings records coded in MARC 85x/86x paired field and/or in 866 free texted field. This includes the migration of legacy holdings data for both serials and monographs.
- The system's support for the MARC fixed fields (LDR, 007, 008) and their functions in the holdings records. Describe the system's support for holdings at all levels of specificity (details) and data in the full range of subfields in MARC 85x and 86x, specifically describe how the system supports the coding and public display of alternative numbering scheme and data in MARC 85x $g-h /863 $g-h.
- The system's support for the creation, storing, and updating of holdings data that are based on MARC coded enumeration and chronology patterns.
- The system's ability to automatically generate a summary holdings statement for public display based on MARC coded 85x/86x fields in real time. Describe if the display format is in compliance with the ANZI/NISO Z39.71-2006, Holdings Statements for Bibliographic Items standard.
- The system's support for the ability to define multiple holdings locations and sub-locations, both consortially and locally.
- The system's support for viewing consortial holdings or local serial holdings and for posting holdings to OCLC WorldCat and other external systems.
- The system's support for linked records. For example, items bound together with separate bibliographic records but shared holdings records.
- The system's support for workflow integration among check-in, binding, and holdings management; for instance, the ability to automatically update holdings at the point of checking in new receipts or volumes from the bindery, or claiming.

Authority Control

Describe or Demonstrate:

- How the system supports current standards such as LC Approved Lists, RDA changes, for authority data and allows all relevant bibliographic fields to be authority controlled. Describe how the system identifies which fields can be controlled.

- How the system will allow the management and maintenance of a shared authority file, with control clearances both at the consortial and local levels.
- How the system updates the authority data automatically and how frequently in a shared environment. Is the service similar to that provided by authorities processing vendors?
- How the system manages the import and export of authority data with one or multiple authority vendors. Can the system export the data in Excel and CSV formats?
- The default and all other automated authority control practices and the ability to customize these practices.
- How the system manages and displays cross-references. Describe how locally created cross-references will be preserved, identified and displayed.
- The granulate level of search and editing capability of a given heading in the system, i.e. subfield level.
- The features and flexibilities when working with batch updating authority records.
- How the system allows local sites to create local authority records, such as special collection materials and university department names.

Physical Collection Maintenance

Describe or Demonstrate:

- The functionality for monograph binding operations. Does the system require a check-in record provided for each monograph binding set?
- The methods and formats for exporting binding information to a file and the methods for generating binding information from the system to send electronically to a vendor. Will the system interact with external, bindery software? Describe which bindery communication protocols are supported.
- How the system generates binding preparation reports or reports which facilitate preservation assessment.
- How the system will allow staff to track and generate reports on their institution's collections for in-house repairs. Can the report be easily converted into different formats, i.e. Excel, Word, etc.?
- How the system will allow flexibility of editing and displaying label layouts or multiple label layouts, and printer selections.
- If the system allows the creation of digital bookplates.
- If the system allows staff to enter URLs in bibliographic records to link to the digital bookplates.
- If the system allows tracking of withdrawals, transfers or alerts when certain items should be removed.

Quality Control

Describe or Demonstrate:

- How the system supports global changes both at the consortial and local level to entire fields and subfields, and specific strings within fields and subfields in all record types. Include a description of the listing or reporting functionality, ability to search across record types, and output methods.
- The system's validation routines for all record schemas and record types (order, bibliographic, etc.)
- The system's standard database maintenance reports, including, but not limited to, headings, data duplication, etc.
- Export and import procedures including how the system manages the import and export of different encoding levels and unique fields, overlay alert capabilities, the ability to manipulate data during record loads (for e.g. adding or deleting fields).
- The system's options for creating custom record templates, macros, shortcut keys, and drop-down menus at the local and consortium levels.
- The system's ability to run scheduled jobs for routine tasks.
- The system's ability to archive and retrieve groups of records.
- The system's ability to perform speedy batch processing of many of records.
- How the system provides the option of export and import of all types of records for manipulation by third-party applications without intervention by system vendor with full preservation of all content designators.
- How the system provides for permissions levels, and tracking of and accountability for staff editing of all records within the shared environment.
- If the system supports a spell check function.

Analytics

A system must enable libraries to make informed, data-driven decisions. Analytics capability must also illustrate promise for future enhanced data collection and functionality such as, correlating student usage data with student GPA, comparing resource usage across formats, identifying the usage of library resources via links in LMS systems, and more.

Current capabilities must include generation of visually engaging and informative reports, the easy import and export of data at no additional cost, integration and confidentiality with external systems such as PeopleSoft, and automation for reporting and analysis.

Reporting and analysis capabilities in this section are outlined as: operational, analytical, and assessment. We define each as:

- Operational – Documents and evaluates current activities and workflows in all functional areas;
- Analytical - Provides for decision-making regarding collections or services;
- Assessment - Demonstrates impact of a collection or service to student and faculty success.

In addition to the functionality listed below, address the expertise needed by library staff or any functions that require intervention by a database administrator or Systems/IT personnel.

Describe or demonstrate:

- Available data elements for analytical and operational reports, including pre-selected and ad hoc choices? Explain any limitations in availability or in the combination of data elements from different record types.
- Operational (i.e. non-public-facing) search functions for creating actionable sets of records, including, but not limited to, Boolean expressions, Regular Expressions, CONTAINS/HAS, wildcards, and fuzzy search capabilities.
- Standard operational and analytical reports does your system provide? Address any limitations that are imposed (e.g. number of records). Examples of these reports include, but are not limited to:
  - Age, size and location of collection, filtered by format and subject and including item and title counts;
  - Acquisitions and usage of items by item type, date, cost, order, fund, location, vendor, selector, format, and bibliographic record, including data across record types, and whether an item is actively available or has been withdrawn;
  - Accounting reports of invoices, encumbrances, fund activity, register postings, payments, and processing status, including by time period, vendor, amount, quantities, totals and errors. Describe how the system assigns costs for packages. Describe export options when multiple payments are attached to an order, as in standing orders.

Describe historical reporting, including budget and spend data. Reports must meet requirements for campus financial audits (5 year retention of records);

- o Vendor performance reports by quantities, amounts, totals, errors and delivery time;
- o Cataloging/Metadata reports, including custom reports and actionable sets of records based on individual fields, as well as routine activities such as URL errors. Describe headings reporting, including first time, invalid, duplicate, blind references, updated, near matches, non-unique 4xx and cross-thesaurus matches. Describe both search and export options at the level of MARC 21 fields and subfields, including leader and control fields. Describe administrative reports such as records added/withdrawn/deleted by year and by individual staff. Describe ad-hoc report generation capabilities such as cross-tab reports;
- o Circulation statistics reports that are retained indefinitely, that can be run with a variety of time periods that include Checkout, Renewal, Checkin, Number of Holds placed and filled, limited by where the transaction took place, what hour, and be able to be broken down by all fields in the patron and item record. Describe the ability to report local paging requests by patron type, item location and item type separate from filled hold statistics. Describe fine collection reports;
- o Collection development reports for # of items added, orders received and paid, total spend, average spend per title, cost per use, bibs cataloged, percentage of collection circulated annually;
- o Resource sharing reports within the CSU that include metrics such as fill rate, turnaround times, time in different statuses, libraries lent/borrowed from, highly requested items, fines reporting, etc.;
- o Serials reports including number of active subscriptions, number of pieces received, internal use count, bound volumes count and filtered by fund code and subject area.
- Usage reports for all types of physical and electronic resources. How will each help us compare resource usage across different formats, including usage of a singular title from a specific package? Address the following:
  - o Collection usage reports by subject area, publication date, LC range, patron type, fund code or other criteria; can the system provide usage reports on recently ordered materials based on order date;
  - o How your circulation reports incorporate flexible date ranges, call number ranges, patron type, material type, title, internal use, material location (e.g. robotic storage, reserves) or combinations of these criteria. Describe how your system treats reserve item usage;
  - o In addition to what's provided in standard journal JR* COUNTER reports, how do your reports distinguish between titles that are part of a package and those on the same platform that are purchased separately, e.g. Elsevier titles not included in the Chancellor's Office negotiated ScienceDirect package? How does your system report data for titles available from more than one source? How does your system report on pay per view options;

- o In addition to the standard ebook BR* COUNTER reports, how do your reports distinguish between titles that are part of a package and those that are purchased separately;
- o Streaming audio and video data (in addition to the standard MR* COUNTER reports). Reports that distinguish between packaged titles versus individually purchased titles;
- o Demand-driven acquisition usage statistics for ebooks, media and other formats, including reports on titles triggered or not triggered by subject, LC call numbers, date of publication, etc.;
- o Statistics on usage by various access/licensing models for materials in all formats;
- o Data or information on licensing restrictions for ILL;
- o Usage statistics from non-COUNTER compliant vendors both manually and using automated reports. Does the system allow reports using usage from both COUNTER and non-COUNTER sources;
- o Usage data of open-access articles and free resources, including materials in digital repositories and external library systems;
- o Usage data of materials in automated storage and retrieval systems (ASRS), including items picked by title, discipline/subject area, material type and item-status changes. Is communication and interaction between the software/databases run by the ASRS and ULMS made in real-time?
- Overlap analysis for:
  - o Serials between packages and individual holdings in any format;
  - o Monographs between packages, DDA records and individual holdings in any format;
  - o Media between packages, DDA records and individual holdings in any format;
  - o Various materials against 3rd party data sets such as Resources for College Libraries, WorldCat, other library collections, etc.
- How does your system manage reserves, including statistics for items that may alternate between circulating and reserve items and pull lists of reserves?
- Statistical analysis capabilities and what types of reports can be generated based on specific data elements in records.
- Automated collection analysis and statistics to aid decision-making.
- Inventory reporting for physical items, including status and location errors.
- Cost per use statistics for all types of resources, including accounting for full text retrieval and searches, individual and package subscription costs, individual and package purchase costs and platform or annual access fees.   How does your system distribute package costs across resources within the package?
- Discovery layer and/or public interface capabilities, such as number of searches, search terms, resource types, time of day, and patron type. (If your system does not include a discovery layer, describe how your system will provide statistics that do not overlap with statistics generated by the client's discovery layer, COUNTER, or other standard reports.)
- If the system provides a link resolver, how does its usage/analytics allow a library to follow the user's navigation/decisions from discovery layer to full-text, including, but not limited to,

requests and click-throughs by unique user, patron type, date, source and source type, and object type? Does the system provide reporting on most popular resources, requests for journals that do not provide full-text, un-accessed resources filtered by vendor and user IP address?

- Resource sharing/ILL reporting features, such as borrowing and lending requests; filled, cancelled, and unfilled requests; physically and electronically fulfilled requests; requests by patron type; alerts for high use titles in ILL; turn-around time; borrowing/lending by institution; and copyright clearance charges filtered by user and department. Does your system provide lending statistics for chapter and journal articles? Describe how your product's statistical data may be compatibly combined with data from related systems (e.g. RapidILL, ILLiad, LINK+, GetItNow, etc.) to produce meaningful, de-duplicated reports. Describe the system's ability to generate cost/use data on ILL transactions.
- Statistics from staff system usage, including workflow management data.
- Integration of statistics from non-bibliographic services such as instruction sessions and attendance, reference consultations, study room usage, equipment rentals, room reservations, and LibGuide usage.
- Integration of patron data from sources traditionally gathered and stored outside an ULMS (e.g. user demographics, student level, major, course registration, GPA, faculty discipline). Describe how your system maintains confidentiality of this data in order to meet privacy requirements without compromising utility. Describe how your system retains this data for reporting purposes; how is it affected by changes to the patron database?
- Conformation to existing national standards, e.g., ANSI/NISO Z39.7-2013, ICoLC and COUNTER?
- Individual campuses and the consortia-level data for campus comparisons, such as collections comparisons, peer institution comparisons, etc. There should be options to report on pre-defined or ad hoc subgroups.
- Generation of data required by external organizations such as the Association for Research Libraries (ARL), Association of College and Research Libraries (ACRL), National Center for Education Statistics (NCES), accreditation agencies, and college rating guides.
- How your system supplies accurate, de-duplicated counts of library resources by, including but not limited to: format, material type, title, discipline/LC call number range, status, date acquired/withdrawn, purchase source (i.e., local, consortia).
- Dashboard reporting features and capabilities, such as sharing features, (e.g. view-only access, or live reports), customization, exporting both raw and formatted reports, automatic updating, or archiving.
- Data visualization functionality.
- Time constraints for record changes to appear, including scheduled system refreshes. What differences in time constraints exist between different functions (e.g. patron record changes require a different wait time than electronic resources management changes). Is cached data available for quicker reports? Describe the typical circumstances in which a user would have to wait more than one hour, 12 hours or 24 hours for a report.

- How long does the system retain transactional data, including circulation, acquisitions and cataloging data such as withdrawn, lost or deleted items?
- Does the system have dedicated fields in records for stats gathering, rather than using existing fields?
- Automation of repetitive tasks, such as saved search strategies, macros, saved exports.
- How, and for how long, does your system archive statistical/analytical data and reports? Include any limits on size of reports or upon stored or archived data. If data and reports are discarded after a period of time, what notifications does client receive and what processes are available for client to download and self-archive data?
- Application programming interfaces (APIs), scripting functionality, or similar features your product offers that specifically enhances analytics and reporting?
- Data export capabilities and available export formats.
- Usage statistics setup and harvesting processes, including publisher login management. Describe automated and manual processes to harvest reports from COUNTER and non-COUNTER compliant vendors, including data loading services at both the campus and consortium level. Also address:
  - Optional COUNTER reports: How does your system obtain optional COUNTER reports? What optional COUNTER reports are supported;
  - Added-value, non-COUNTER reports, such as Usage by IP Range;
  - How often are statistics harvested, and what is the time lag;
  - Harvesting failures: How does your service monitor and resolve them;
  - Describe the process for manually correcting usage data and how the user may access raw usage data.
  - What is the process for manually uploading data?
- Data and/or logs from proxy/identity management (LDAP/Shibboleth etc.) systems that can identify which patrons are using library resources.
- External collection comparisons, e.g. Worldcat, Choice, or Books in Print. Explain any limitations or restrictions.
- Integration with Google Analytics or similar products that track visitors, page hits.
- Generation of reports from the license records.

Circulation & Resource Sharing

The CSU seeks a system that enables efficient, transparent circulation and resource sharing as if each institution were a member of a single, large, multi-branch library system.

The system should:

- Support the creation, modification, and maintenance of patron and item records.
- Allow for a flexible and adaptable matrix of circulation rules.
- Allow for a continual process of modifying services and workflow based on empirical data.
- Provide for the tracking and allocation of resources in an efficient and responsible manner.
- Maintain strict data privacy and security.
- Accommodate individual institutional preferences while retaining the ability to eliminate duplicate record-keeping and redundant procedures across member libraries.

Furthermore, many CSU libraries have long partnered with non-CSU institutions to share resources. Nearly half the CSU libraries are members of a state-wide consortium called Link+, and San Marcos and San Diego are part of a San Diego area consortium called the Circuit. These consortia are valuable to many CSU libraries, and any system we acquire will need to give individual CSU libraries the ability to integrate with them.

Circulation

General

Describe or Demonstrate:

- Workflow from the point of an item-level request made by a patron on a local item, to delivery of the item to the patron at the patron's specified pickup location, to circulation of the item to the patron.
- Handling of multiple branches, remote storage facilities, and special collections within a single institution with respect to requesting, circulation, and delivery.

Administrative

Describe or Demonstrate:

- Capabilities to view, edit and manage lending rules.
- How the system integrates lending rules with library hours and closures.
- Flexibility of circulation parameters and rules.

- Permission levels for maintaining access to specific circulation functions at the local and system levels.
- How staff permissions can be assigned to groups, as well as to individuals.
- How the system provides for the coexistence of consortial lending rules and local lending rules.
- The process to make changes to circulation parameters and how they take effect e.g. in real time, necessitating a system restart).
- Flexibility of circulation parameters and rules to allow for circulating non-traditional materials (equipment, computers, laptops, software, etc.)
- Flexibility in setting loan/overdue/renewal periods, such as a hour loan, but with an overdue fine period calculated in minutes.
- The ability to tailor staff screens by workstation, showing only functions needed by staff at that workstation rather than all available functions.
- Flexibility within the staff client to change between circulation and other staff modes, such as cataloging or acquisitions.
- The ability to set up permissions so that edits can be tracked by date and by who made the edits.
- Management of circulation transactions alerts and overrides.

Check-in / Check-out / Renewals

Describe or Demonstrate:

- Support for check in/checkout workflow at a local circulation desk.
- How the system determines due dates, due times, and fines for checkouts, renewals, recalls, holds, and bookings at a local and consortial level.
- Available options when exceptions need to be made, e.g. backdating check-in or overriding a due date. How does this interact with local loan rule/policies when dealing with consortial lending?
- Support for offline circulation transactions when the system is unavailable. If a site loses access to the shared system, what kinds of activities (e.g., checkout, checkin, cataloging) would the site be able to continue? Describe the process involved in resynchronizing the local site with the shared system after the issue has been resolved.
- Renewal functionality, including system generated renewals, staff initiated renewals, and patron initiated renewals at both the local and consortial levels.
- Supported mechanisms to scan or read material and patron identifiers into the system (e.g. barcodes, RFID tags, mag stripes, etc.).
- The ability to circulate materials on the fly.
- How the system manages simultaneous use of records.
- Support for customized checkin/checkout receipts by print and email?
- How items 'in transit' between locations appear and are managed in the system within the same library, i.e., main to/from branch/satellite libraries.

Billing and Payments

Describe or Demonstrate:

- Manual and automatic generation of bills and fees. Options to communicate these to patrons, both locally and in the CSU.
- Types of payments the system can accommodate (credit card, cash, campus cash cards, etc.) and how it can be customized at each library.
- Integration with a campus's financial system (e.g. PeopleSoft), or an institutional business office or external service bureau, to process Library financial transactions, (e.g., Can the system handle coordinating with such financial systems so that all pertinent records are cleared and/or adjusted in real time?)
- The ability to update, edit, and undo payments.
- Maintenance of payment information and how long the data can be maintained at the consortial and local levels.
- Online payment options.
- The interface with collection agency software and ability to update patron records accordingly. (e.g., What collection agency software can your system currently integrate?)
- Ability to globally purge and waive fines.
- How the system can facilitate billing between CSU libraries, (e.g., Can the system automate financial processes between CSU libraries so they can be handled electronically as opposed to manually?)

Items

Describe or Demonstrate:

- Capabilities to track in-house use of materials and what statistical reports may be generated from this data.
- How the following data is updated and maintained:
  - total checkouts;
  - total renewals;
  - year-to-date and last-year-to-date checkouts.
- How the system handles and tracks the creation of and changes to temporary item records.
- Cross circulation functionality, which is the ability to track at the item record level when patrons from one institution checkout material from another institution.
- The level of granularity that local and consortial libraries have at retaining or deleting patron history after circulation discharge.
- How the system manages, updates or limits item statuses, such as automatic- vs. staff-initiated status changes.
- The ability of the system to retain a history of item status changes, e.g. from "claims returned" to "not checked out."

- What information is available for reporting after item records are deleted or withdrawn.

Course Reserves

Describe or Demonstrate:

- Activation and deactivation of course reserve items and lists.
- Course reserves functionality (both print and electronic), including the ability to cross-link courses and items and to suppress temporary items.
- Course Reserves integration with the catalog/discovery layer. Does the system support the ability to suppress personal course reserve records outside the reserve layer/module? What are the fields that can be indexed?
- How patrons access Course Reserves materials online, including electronic material and information about print materials.
- How the system handles moving items from a permanent collection location to a temporary Course Reserves location.
- Creation of physical and electronic/digital item records specific to Course Reserves. What are the supported file formats for electronic reserves?
- How the system supports integration of Course Reserves with learning management systems? (e.g. Blackboard, Moodle, etc.)
- Does the loan period i.e. "-hour checkout" display in the course record in the discovery layer and in the item record?
- Any copyright and licensing agreements, procedures, and compliance tracking that your system offers.
- How the system stores ON RESERVE/DATE OFF RESERVE/DATE history in the records of library-owned items. Does it retain course info, etc. as part of this history?
- How third-party rights management software (e.g., SIPX) can be integrated with Course Reserves.
- Does the system allow faculty instructors to request Course Reserves items via the Discovery system?
- The ability for access to electronic course reserves documents to be password protected or otherwise secured.

Hold Shelf Management/Paging Lists

Describe or Demonstrate:

- The hold/holdshelf management capabilities of the system.
- The ability to make items non-requestable, i.e., course reserves.

Collection Management

Describe or Demonstrate:

- Inventory/collection management tools available in the system.
- Mechanisms offered for Floating Collections.
- Generation of shelving range labels.

Bookings / Scheduling

Describe or Demonstrate:

- Booking and scheduling capabilities for equipment, materials, and rooms.
- Ability to manage rentals if a library charges a fee to rent equipment.

Resource Sharing

Consortial (CSU)

Describe or Demonstrate:

- Borrowing and lending workflow of an item-level request made by a consortial patron on a consortial item, including:
    - delivery of the item to the patron at the patron's specified pickup location;
    - circulation of the item to the patron;
    - return of the item to its home library.
- Ability to restrict consortial privileges on local patrons (e.g. community / alumni / affiliated groups).
- How the system determines due dates and hold priority at the consortial level given numerous global and library-specific shelving locations, categories of patrons, and material formats. How does the system honor local lending periods when lending to a consortia member library?
- Tools available to manage and balance borrowing requests across member libraries, to target outcomes such as workload fairness and speed of delivery. Include information about how quickly such changes take effect.
- Mechanisms for tracking items in transit for delivery from and to their home libraries.
- How the system manages circulation of and access to licensed electronic materials, such as e-books and e-journals.
- How the system can handle on-demand scanning of local materials requests, such as book chapters or archive materials.
- The ability to generate shipping labels and paging slips.

Interlibrary Loan (non-CSU)

Describe or Demonstrate:

- How the system interfaces with an external consortial borrowing system such as the Innovative INN-Reach product (Link+, Circuit).
- How to integrate request data from other library systems, such as ILLiad or OCLC WMS, so that patrons can:
    - view outstanding requests;
    - have materials circulated from the external system via their patron account;
    - renew items;
    - view accrued fines;
    - pay fines.
- How the system federates with other circulation platforms, including traditional interlibrary loan systems (ILLiad, Rapid-ILL, etc.), for the delivery of electronic and physical materials of items not owned by the CSU.
- The ability to create temporary circulation records for ILL items coming from a non-CSU library.
- How the catalog integrates with ILLiad or OCLC WMS for requesting un-owned items using single sign on.
- Any copyright and licensing agreements, procedures, and compliance tracking that your system offers.

Patrons

Patron Management

Describe or Demonstrate:

- Integration with the campus CMS (PeopleSoft) for patron management and batch patron loads.
- Allowances for the management of patrons (alumni, community borrowers, etc.) who have local privileges, but not consortial privileges.
- Elements and structure of a patron record in the system and how patron records are created. For example, does the system support record templates at the consortial and local level?
- Fixed and variable fields available in the patron record. Does the system support the ability of a single campus to have custom fields? Which patron fields are indexed?
- How the system tracks and changes to patron records.
- Protection for patron data and privacy.
- The process for merging duplicate patron records.
- How the system supports online patron account creation and management.
- How the system allows automatic and manual blocks of patrons from borrowing and other services both at the consortial and local level.

- How the system allows a patron to access services at multiple CSU campuses while maintaining a primary affiliation.
- The ability to update patron records both individually and globally.
- How the system accommodates multiple patron statuses (staff that is also a grad student, etc.). Does the system allow specification of a hierarchy of privileges of multiple simultaneous statuses when there may be a conflict?
- How the system supports proxy and/or linked patron records.
- What information is available after patron records are deleted.
- How the system supports patron record loading and field protection in existing patron records. Is there an interface for mediating/translating patron data as it is ingested from a student information system? If so, what are the supported options and is scripting functionality (e.g. regular expressions, Perl) provided for more advanced manipulation of incoming data?
- How the system integrates with third-party ID card systems, such as CI Badge.
- what kind of data, other than text, can be attached to patron records (e.g. patron photos).

Patron Self-Service

Describe or Demonstrate:

- Integration with self-checkout systems, automated material handling systems, and automated storage/retrieval systems.
- Patron self-service capabilities.
- The ability for patrons to opt-in to retain reading history and/or reading lists for materials not yet checked out.
- How the system allows for automated patron information system e.g. tele-renewal.

Communications and Notifications

Describe or Demonstrate:

- Types of notices that the system provides (e.g., receipts, paging slips/lists, book bands, hold shelf tags, pick up and overdue notices).
- The ability to customize, design, and brand print and electronic notices.
- The types and methods of automated and staff-initiated patron notifications the system provides (e-mail, SMS, instant messaging, mail, telephone etc.). How would this work for hourly checkouts?
- Circulation events that trigger generation of notices.
- The ability to schedule generation of notices.
- Staff intervention/communication options between individual libraries about local and consortial transactions.
- Standard and custom patron and item alerts.

- Notice and label templates available for each type of notice or label generated, with the ability to customize and brand for each individual library?
- The ability to send custom and standard emails/SMS from patron records within the system.

Discovery and User Experience

The CSU libraries seek a resource discovery system, *either as part of an library services platform or as a stand-alone offering*, that offers library users robust options to search with a "Google-like" search experience or use advanced tools.

Most users do not understand the myriad resource silos and access restrictions that they encounter when searching library collections. Because our 23 member institutions include a wide range of academic libraries serving diverse user needs, levels, and requirements, we seek a discovery system that will serve the needs of our institutions and all users.

Requirements

Any Discovery system must:

- Seamlessly connect users to all available content.
- Make availability and access clear and easy to the user.
- Allow the user to fully manage their experience.
- Be fully compliant with CSU Section 508 accessibility requirements.
- Use existing campus user credentials for authentication and authorization.

Discovery

We envision a discovery system that enables discovery of resources, regardless of format or resource type, in locally held collections and beyond. The discovery system will enable users to customize their search experience by setting selected parameters.

Librarians will be able to set and control available search parameters through an intuitive backend interface. The discovery system will index metadata and full text documents from disparate resource silos, and present an integrated, faceted search through an intuitive interface.

Describe or demonstrate:

- A listing of those databases, publishers, open access repositories, and other data sources that are indexed by the discovery system and the level of indexing, e.g. metadata or full-text.
- The level of control each campus will have over the indexing of local catalog and digital collection records. To what degree can each campus modify scopes and facets?
- An intuitive interface that searches disparate resource silos and enables users to create searches using natural language.
- Retrieval of relevant items available to users regardless of format or physical location including display, organization, and limits of intuitive search results.
- Users' control of the scope and refinement of a search.

- Method used to find, interpret and assign metadata to facets in the system.
- How the vendor responds to requests to create customized indexes and facets.
- Supplemental and contextual information provided about items such as book covers, tables of content, indexes, etc. and accommodates add-in resources for discovery (e.g. LibraryThing, book covers, Google Books preview).
- How you will facilitate both known-item searches and open-ended searches (e.g. authors, titles, subject terms, etc.).
- Facilitation of advanced search features.
- How your system provides help to users who receive zero results for their query, including ways to connect users virtually with librarians.
- Recommendations to subjects, related terms, alternate titles, spelling corrections, and other ways to help user identify and use alternate search strategies.
- How your discovery tool operates as an integrated component of an ILS or as an independent, stand-along product with other ILSs.
- Ability to display or suppress titles on order in the discovery system at both the bibliographic and order record level.

User/System Interaction

We envision a discovery tool that provides an intuitive interface for users to obtain or access all resources available to them. Users must be provided with easy-to-understand tools for using system features to request, obtain, and access resources.

Describe or demonstrate:

- Display of the availability, status, and location of specific resources.
- How users place holds and/or recall items from their own institution.
- How your system distinguishes between available full text electronic or print and unavailable full text in print or electronic formats.
- How patrons can email, save records and searches, print, share permalinks for searches and results? Provide an example of a permalink.
- How your system indicates to users when items are subject to embargo and may not have full text available?
- Presentation of holdings for individual campuses? Is there the option to display holdings from multiple branches or campuses on one bib record?
- How does your system allow for consortial or individual campus information to be displayed on a campus-by-campus basis? (For example, if a single campus wanted to provide the loan information or number of concurrent users for an e-book, how does your system handle this?)
- How individual libraries can customize searches with custom scopes such as searching journal titles, reference books, or new books.

- Please describe how the patron account offers the following features:

    o Status of patron's account and borrowing privileges;
    o Items checked out;
    o Status of recall/hold requests;
    o Patron fine status and fines/fees paid;
    o ILL request status;
    o Saved records;
    o Saved databases;
    o Saved searches;
    o Search history and borrowing history;
    o Favorite databases;
    o Links to reserve items synchronized with patron course enrollment.

- Options for print and/or electronic reserves? Can a static link be made for reserve lists? Can reserve items be suppressed from the general search but display in a reserve specific search?

- How can patrons to text relevant information?

- The functionality with citation management and productivity software?

- Help options available to users. Can individual libraries customize the interface to link to a campus specific Ask-a-Librarian service, a local knowledge base, or other local library information?

- Alerts and notifications to users about new items, checked out items, overdue items, etc. across a variety of platforms and devices.

- Creation of custom notifications (e.g. email, RSS feeds) for journal alerts and new results of saved searches?

- Custom list creation by individual libraries of resources (such as new books, popular reading suggestions etc.)? How are these lists displayed in the interface? Can these lists be shared on social media or linked?

- Functionality for specific needs of distance education students, e.g. request items via ILL, which are held in print at their home institution, or access to e-resources at an affiliated CSU campus.

- That an item is not available and must be requested through ILL?

Interface Design and Integration

We envision a system whose end-user interface must be fully Section 508 compliant and accessible from multiple devices and platforms.

Describe or demonstrate:

- How your system is fully Section 508 compliant. Refer to the following documentation for requirements and guidelines:

- o *Voluntary Product Accessibility Template (VPAT)*
  http://www.state.gov/m/irm/impact/126343.htm
- o *Completing the Voluntary Product Evaluation Template (VPAT)*
  http://www.calstate.edu/Accessibility/EIT_Procurement/APPENDIX.C.VPAT_GUIDE.doc

- The discovery system's performance across platforms and devices.

- Any web technologies in use (e.g. Java) that cause the interface to function differently or in a reduced capacity in certain browsers are disclosed to libraries.

- Accommodation to non-English languages.

- The input and retrieval of records with special characters.

- Label and display options available to individual libraries to customize display of results, individual records, and user-created lists.

- Branding and customization options available to libraries at the local level, including ability to set default options.

- How user feedback is obtained and used to inform system/interface changes?

- Your companies approach to evaluate and improve the usability and accessibility.

- Integration with local online reference services, social media, external web resources, and other electronic services for communication between library patrons, librarians and staff.

- How data and tools from such services can be pulled into your system's interface, and how data, records, custom searches, etc. are fed out for display in other systems.

- Integration with common learning management systems by patron-operated tools. Is any functionality specialized by patron type? Which Learning Management Systems (LMSs) does your system currently integrate with? Be sure to disclose any difference in functionality across different LMSs.

- The ability of the system to display content from providers of enriched content such as covers, sample chapters, reviews and digital shelf browsing from vendors such as Syndetics and LibraryThing for Libraries, and stack-mapping services, including custom stack-mapping applications.

- Functionality with records and finding aids created by systems such as Archivists' Toolkit and ArchivesSpace, and Archon. Can these records be imported or harvested into the system?

- Ability to integrate with or enable the archiving and/or discovery of dataset archives (e.g., big data archives); to integrate with or enable the archiving and/or discovery of online portfolios and mixed-media materials; and to work with institutional repository software (DSpace, Hydra, Islandora, ContentDM, III ContentPro).

- Incorporation of external javascript widgets for news feeds and chat functions.

- Integration of e-book discovery and access.

Systems

Requirements

Reliability and Cloud-Based Systems

The system must meet very high reliability expectations and utilize a cloud-computing architecture and browser-based interfaces. And the vendor must be ready, when failures do occur, to mitigate and resolve them quickly and accurately.

Robust Data Security, Identity Management Solutions, and Authorization Model

The system must store library and user data securely and respect user privacy. The system should also offer systems for identity management using standard protocols that provide streamlined authentication for end-users and library staff.

Integration, Extensibility, and API's

The system should be customizable and extendable to respond to the unique needs of each CSU campus, and should integrate with technologies and metadata standards in use at each campus.

Comprehensive support and training, during and beyond migration

The CSU desires long-term partners that can not only deliver a sound, useful system with a strong documentation set, but can also deliver services, training, and support when called upon. The CSU also seeks partners with a history and culture of proactively responding to customer needs and suggestions, and supporting the activity of user groups and communities.

Reliability, Scalability, and Performance

The CSU seeks to maintain the highest possible level of service availability and response times to all CSU campuses in all locations.

Describe or demonstrate:

- The cloud-based network environment of the system.
- Supported web browsers for both staff and end-users. How do you determine which platforms and browsers you will support? Describe any functionality that cannot be successfully completed through an Internet browser.
- How the system minimizes business disruption and maximizes system availability, particularly within the context of a geographically large implementation. What kind of "up" time do you typically deliver (also define any terms within your answer as appropriate)? What are the biggest risks to the system, in terms of availability (e.g., power outages, network outages, data

corruption, software bugs, reliance on external partners), and how are these risks mitigated? Provide any examples you can of large outages that have occurred, how long they lasted, and how you resolved them.

- Monitoring and reporting of system reliability and performance. Provide sample reference data or screenshots, as appropriate, of monitoring feedback. In particular, please describe:
    - What kind of 24/7 downtime monitoring and support is available;
    - How monitoring is staffed and the number of staff members who can support to critical outages over a 24-hour period;
    - What is the expected response time for resolving downtime;
    - Processes undertaken to minimize downtime;
    - If there is a 'status' page to view the current up or down state of services;
    - Scheduled down times, or "quiet time," the system requires, noting the frequency, duration and purpose;
    - Available tools to continue core functions during down times? How are jobs that are scheduled to run during scheduled and unscheduled down times handled;
    - Proactive monitoring of the system by your organization, and any actionable communications to the customer that result from this monitoring. For example, do you warn the customer if certain system limits are being reached, such as record counts or processing availability? How do you alert the customer in the event of planned downtime and unplanned system anomalies? Is there a 'current status' page that would show the known current status (up or down) of the application and/or servers;
    - Is there a backup instance of user-facing components that institutions could continue to use during downtime? For example, is there a staging or testing port/server that an institution could link to if downtime occurs?
- Load balancing distribution in the Cloud-based network environment.
- Storage of and architecture of institutional-level data (e.g., is institutional data stored separately? How is individual institution data differentiated architecturally?)
- Limitations or performance issues that may occur during large batch-edit or data operations system-wide.
- Architecture of the database and any proprietary and open-source components.
- Expected level of local systems staffing required for administering the system, given a university system such as the CSU. What level of support and staffing is necessary at the consortium level?
- The largest system (e.g., sites, record counts) you have deployed for a single customer using the system? When did you implement this system? Describe any significant hurdles you encountered in its implementation and how they were overcome.
- Initial configuration or implementation decisions that cannot be later changed, or altered only with great effort or expense.

- The public-facing web interface architecture (framework used, programming language, the ability for staff to access and modify code.)

- Configuration decisions needed 'at the consortium level' versus configuration decisions applicable to a subset of institutions or be determined locally.

- How upgrades are performed, such as feature enhancements, updates and fixes for the system quickly and easily.

- Email configuration sent from the system. What kind of template options and customization is possible? Can emails be sent directly from patron records or other points at the system, such as course-reserve records (to email course faculty), acquisition records (to email vendors) etc.? Are email notices scheduled?

- Automatically scheduled cron jobs and tasks scheduled by the system. Can the schedule of these jobs be adjusted (For example, if a job typically runs at 2 AM, can it be changed to 4 AM)?

- How indexing rules are defined by the system in both staff interfaces and in the discovery system. Can customers modify local indexing rules (example: a library uses a local 99x field for a certain purpose; can they edit indexing rules to include that 99x field in their local indexing rules, that would not affect other consortium libraries' locally defined rules?) Do customers have direct write access to indexing rules?

- How and when indexing processes run in the staff interface and in the discovery system (e.g., nightly, upon records being saved, etc.), and any limitations for interacting with the system while indexing or other automated processes are running.

- The ability of the system to provide error reports.

Data Security and Data Access

Describe or demonstrate:

- Data management practices to which the system adheres, including those for patron and circulation transaction information. Include relevant information on standards compliance (such as ISO 27001) and any organizational information technology audits that have been completed.

- Can data access be segmented -- for example, can institutions decide what patron information is viewable by staff at other institutions?

- Use of and support for secure protocols to safeguard data in transit (e.g., secure FTP loading).

- Encryption in backups and in replica sets.

- Prevention of data loss and disaster recovery plans. How is data recovered or rolled back to specific points in time in the event data loss does occur? Also describe the process through which data is recovered. For example, is the recovery process a self-service mechanism? Or, must the customer contact your organization to request data recovery? What is the typical turn-around time to have data recovered? How compartmentalized is the data with respect to data recovery? In other words, can a customer recover a subset of bibliographic records, a subset of

patrons, or a particular range of transactions? Or, is system recovery or rollback only possible in its entirety?

- Architecture of data storage and redundancy (for example, multi-tenancy, cloud distributed, etc.). Describe the regional or global distribution of data centers.

- Protocols for addressing unauthorized access to or disclosure of confidential data?

- Data validation the system performs on records as they are created or edited, and indicates whether this is different for batch jobs as compared to single records.

- How changes are tracked to records (patron, item, bibliographic, etc.) Is there an audit trail or version control for edits? Is it possible to revert to previous versions of a record? Is the audit trail available for all records in the system or only a subset?

- Simultaneous edits to records by multiple users. For example, if a cataloger is editing an item record, can the circulation desk check out that same item, or is the record locked? If simultaneous edits are allowed, how are different simultaneous edits reconciled?

- The ability to allow for granular, function-by-function authorizations, so that fund and payment data cannot be compromised and separation of functions can meet audit requirements.

Authentication, Authorization and Identity Management

Describe or Demonstrate:

- How the system can leverage existing identity stores (e.g., Active Directory, LDAP), for both staff and patron accounts. Describe also how such capabilities can co-exist alongside identities natively managed within the proposed system.
- The extent to which the system has been designed to comply with laws and regulations governing the storage and use of "protected" user data. Examples of such laws and regulations include: Family Educational Rights and Privacy Act (FERPA), Health Insurance Portability and Accountability Act (HIPAA), and Payment Card Industry Data Security Standards (PCI-DSS).
- Policies on backing up, recovering, securing and purging user-supplied data. For example, how might you handle a user who has accidentally deleted a resource list created in your system?
- Support for single sign-on authentication and authorization systems (e.g., CAS, Shibboleth, Microsoft's Identity and Access Management system and/or EZProxy).

- How workflows for loading patrons where different identity management systems may be employed by different campuses using the system. CSU campuses may have a variety of identity management systems - how will a shared environment accommodate user data from a variety of sources?

- How staff administrative rights and staff accounts are assigned within the system. Can administrative rights and staff accounts be assigned to identities stored in external identity stores, such as Active Directory? Can administrative rights be assigned to groups, as well as users? Does the system allow compartmentalizing of administrative rights on a per-institution

basis? For example, can you limit the effect of administrative rights assignment to a single institution?

- How your system addresses group-based permissions for staff. Also describe any differences in what permissions and privileges can be managed for a group vs. an individual account.

- The level of granularity of access controls for staff functions (principle of least privilege). E.g., can certain data elements be made read-only for some staff and read-write for others?

- Some CSU staff and patrons may have identities with multiple institutions (e.g., some staff are also graduate students; some are staff at institution A while graduate students at institution B, etc.). How would users with multiple affiliations be supported in the system, with respect to authentication, permissions assignment to their account, and permissions on their accounts? Can hierarchies be defined (e.g., if staff is also a grad student, but grad students have more privileges, use the grad student's privileges)?

- The ability for deploying unique authentication systems at the local level (e.g. affiliated/ community / alumni / public.)

- The dimensions by which patrons' accounts can be personalized for them. For example, if data on a student's major is present in a campus identity store such as PeopleSoft, can that data be used to automate recommendations based on their major, etc.?

Integration and Extensibility

Describe or demonstrate:

- The ability to create, edit, store, publish and enable the discoverable of archival metadata records (e.g., Dublin Core, EAD, MODS, METS) and to integrate with digital object and metadata repositories. Describe the system's ability to adapt to emerging metadata standards in the future, such as BIBFRAME.

- How the system works with ASRS systems such as Dematic or HK? Describe the ability to sync inventory data with these systems; how are new records loaded into the ASRS from the system, and how is the system updated with information from the ASRS?

- The system's integration with campus financial systems, as used for ordering, invoicing and other functions, as well as collection agency services; and ability to accept and process payments via cash, check, credit card, PayPal, Square, student campus cash cards, etc.

- How the system connects to campus information systems such as PeopleSoft to create and update patron records. Describe the ability to communicate fines and payment information to campus bursar systems, or the ability to indicate the fines and other charges have been transferred to the campus bursar system. Describes how campus blocks and holds due to fines can be communicated to central campus systems. For example, if fines are paid through a central campus bursar's office, can the patron's account be updated in real-time or through harvesting when payments are made through the campus office? Describe how the system can provide data to integrate library Information in a campus portal or third-party system.

- How the system works with tools such as GOBI, Cataloger's Desktop, and RDA Toolkit. Describe procedures for automatically ingesting bibliographic record updating services (e.g., OCLC Bibliographic notification services).

- Support for RFID Systems, including automated materials handling, such as AMH from Lyngsoe and self-check-out systems (e.g., 3M Self-Check).

- How the system supports the NISO Circulation Interchange Protocol (NCIP / ANSI/NISO Z39.83), including reference to successful implementations. Which application areas are supported (e.g. Direct Consortial Borrowing, Circulation/ILL, Self-Service Circulation)? Which NCIP messages are supported and does the system support both the roles of initiator and responder? Does your implementation include secure transport (e.g. HTTPS) wherever possible?

- How the system supports vendor-led protocols such as 3M's SIP2.

- Your organization's participation in new NISO standards development as well as ongoing standards maintenance. How quickly have your products incorporated new application areas or messaging capabilities of an evolving protocol? Are the new features available as part of general releases of the software or are they custom-developed per client?

- The system's technical integration with content providers and various DRM systems: e.g. Overdrive, Adobe Digital Editions, Adobe Content Server, Ebrary, Safari, iLibrary, EBSCO.

- Technical integration with copyright and rights management services: e.g. SipX, Copyright Clearance Center (CCC) Get it Now.

- Compatible label printer brands (e.g., RapidX, Zebra) and printing formats (e.g., postscript).

- How the system may be used to integrate library data (such as title lists) into learning management systems such as Moodle/MoodleRooms, Blackboard, Desire2Learn, and Canvas; as well as for content management frameworks such as Drupal and WordPress; and guide management systems such as LibGuides.

- The product's support for the Library Linked Data model, including the Resource Description Framework (RDF) and RDFa. For example, does the system possess the ability to expose, as linked data, authority-controlled names and holdings in the shared management system?

- The systems' level of interoperability with common resource sharing systems such as: RapidILL, ILLiad, Odyssey, Ariel, Get It Now, OCLC Article Exchange and OCLC Resource Sharing.

- The ability to create and customize RSS feeds and other feeds of data (e.g., feeds of data for use with Twitter/social media APIs) that can then be embedded in web pages/LibGuides. Describe how long RSS feeds are stored before they expire. Describe the ability of users (e.g., students, faculty) to create and subscribe to RSS Feeds.

- How library data is made available for indexing via commercial search engines (e.g., Google and Google Scholar) and how the system enables discoverability from outside the system's own discovery layer?

- Any facility the system provides for staff workflow automation, using such techniques as keyboard shortcuts, task-oriented macros, keystroke recording, or scripts that can be implemented on the staff interface.

- Interoperability with video streaming software such as Haivision Video Furnace, Kaltura and Kanopy, and ShareStream. Describe how metadata and rights information for streaming / media resources is managed and harvested.
- The ability of customers to develop add-on or extension functionality that directly modifies the functionality in the system. In other words, apart from APIs, is there a way to write scripts or functions that modifies functionality within the system itself? Or is there a process for submitting such enhancements for code review for eventual inclusion in the system?

Application Programming Interfaces (APIs)

Describe or Demonstrate:

- The specific data and functionality that your system exposes via application programming interfaces. Does your system provide these APIs via REST?
- Any licensing or technical restrictions or constraints placed on the use of these tools and services. Are business rules and access controls applied?
- Authentication mechanisms for interacting with the system's APIs, and how API keys/credentials are generated, stored, and distributed.
- How costs and fees are assessed if an institution requires additional development in order to integrate with third-party software.

Migration and Implementation

Describe or Demonstrate:

- The estimated timeline for migration and implementation and the major steps in the project, and provide a detailed description of your approach and proposed plan for the data migration process.
- The overall timeline for a large university system such as the CSU to migrate and implement your system. Include recommendations regarding the grouping of libraries, and the number of stages.
- Your previous ILS and ERM/link resolver migration experience.
- The process for migrating acquisitions data from an ILS other than your own system into your system. Is there any data that does not migrate? Is there any data that is not fully functional and reportable in your system after migration, including, but not limited to, local notes (free text), payment and vendor history, fund allocations and encumbrances?
- The process of migrating each library's electronic resource/bibliographic records to the new system.

- Preparation steps and implementation steps necessary to ensure appropriate migration of data (bibliographic, acquisitions, item, holdings, license, etc.) and to avoid data loss, the need for data clean-up projects, and related problems.

- Information required from non-library campus units, such as information needed from campus IT departments regarding LDAP and identity management. Provide examples of forms used to collect this information where available.

- Outline the roles and responsibilities of the library and the vendor during the data migration process. Describe the required involvement of library staff in the migration process.

- Your experience migrating data from Innovative Interfaces Millennium and Sierra, and Ex Libris Voyager. Describe any specific considerations or difficulties in migrating bibliographic, acquisitions, serials, check-in, electronic resource, content license, patron and circulation records and data from these systems into your system.

- Which data entities can be migrated per library activity area. Detail data from library areas that cannot be migrated. Migration must include ERM (Electronic Resource Management) data.

- The ability to retain and preserve transient or temporal data, such as checkouts, holds, item status, item statistics (such as total checkouts), patron status and patron blocks, through the migration process.

- The ability during migration to merge similar bibliographic records without loss of locally created data.

- How the integrity and quality of the data will be maintained in the migration process.

- How invalid data (data found in the current system that will need to be cleaned or corrected before migration) is handled. Will libraries receive reports of data found to have problems during migration?

- The ability during migration to handle and resolve duplicate barcodes.

- Your approach with regards to system configuration and customization by the library. What tools will be available for library staff to configure and customize various parameters?

- The training program content provided during implementation, the method of delivery, and materials. How much on-site training is provided? How much online? Are there opportunities for both synchronous and asynchronous training?

Support, Maintenance, and Enhancements

The CSU seeks a long-term systems partner committed to customer service and open to customer feedback. Vendor customer support and training services should be easily accessible, with a rapid turnaround time for service requests, and available 24 hours a day/seven days a week. Customer service should be efficient and thorough.

Describe or Demonstrate:

- Your customer support venues (e.g., web, phone, email), periods of coverage, and expected response times.

- How your customer service system tracks and responds to issues.

- The documentation, including format, accessibility, and ease of use. Is documentation clear, concise, searchable and easily understood with screenshots and other examples? Does it include context-sensitive functional module integration?

- How updates and documentation are distributed (e.g., listserv, document center, etc.)Describe your customer support model. For example, would you accept support requests from any CSU Libraries staff member, or only from designated representatives? Do you provide a primary contact(s) for a given customer account, or do you provide support by geographic region, or by area of specialty (e.g., circulation, cataloging)?

- Is there an active user group for your product? What is their scope and role? The CSU Libraries have a history of actively participating in vendor-centric user community groups to help positively steer product direction and enhance the usefulness of a system for all community members. Describe any customer community activities you sponsor or support, such as online or in-person venues to allow customers to share ideas and systems. Include information about annual conferences and attendance, and regional interest groups (particularly in California).

- Does the user group have an active community of programmers and developers adding functionality to the system? What is the process for sharing custom developed add-ons or scripts with other users of the system?

- The product enhancement process, and the role that customers play in identifying and prioritizing new features and enhancements. Describe any changes or updates you have made to your system in the past year as a direct result of customer feedback. Describe typical time frames for items on a development road map (e.g., quarterly, 6 months, etc.)

- The parameters of your "typical" Service Level Agreement (SLA) with a large partner such as the CSU system. How well does the system meet established intended service targets?

- The process of escalating support requests. What are the levels of severity / importance for support calls? Describe the 24/7 support response for critical problems (e.g, system outages).

- What enhancements are planned for development over the next 24 months?

- The frequency and scope of both major and minor releases. How long do you support a major platform release after it has been superseded by a new version?

- The content and delivery method (context-sensitive, online, knowledgebase, etc.) of administrative and end-user documentation sets, as well as the frequency of documentation updates. Also describe the availability of user-authored content, such as community wikis.

- The availability of training for systems staff and systems administrators at each institution. Describe the various levels of training for staff according to technical

expertise. Provide examples of configuration changes that can only be accomplished on the vendor side and cannot be completed by staff at each institution.

Appendix A: Current Systems Environment

Campus	ILS	ERM	Link resolver	Discovery
Bakersfield	Voyager	n/a	SFX	Summon
Channel Islands	Voyager	n/a	SFX	Summon
Chico	Sierra	Sierra	SFX	Ebsco Discovery
Dominguez Hills	Millennium	n/a	SFX	Summon
East Bay	Sierra	n/a	SFX	Summon
Fresno	Sierra	Sierra	SFX	Summon
Fullerton	Millennium	Verde	SFX	Summon
Humboldt	Voyager	n/a	SFX	Summon
Long Beach	Millennium	Millennium	SFX	Summon
Los Angeles	Millennium	n/a	360 Link	Summon
Maritime	Sierra	n/a	SFX	Summon
Monterey Bay	Voyager	n/a	SFX	Summon
Moss Landing	Voyager	n/a	SFX	Summon
Northridge	Millennium	Millennium	SFX	Summon
Pomona	Sierra	Sierra	SFX	Summon
Sacramento	Alma	Alma	Alma	Primo
San Bernardino	Millennium	n/a	SFX	Summon
San Diego	Sierra	360 Res. Manager	SFX	Summon
San Francisco	Sierra	Sierra	SFX	Summon
San Jose	Sierra	Sierra	SFX	Encore
San Luis Obispo	Millennium	360 Res. Manager	SFX	Summon
San Marcos	Alma	Alma	Alma	Primo
Sonoma	Sierra	Sierra	SFX	Summon