Large Shared System Model as Proposed by Ex Libris

Comments from the Large Scale Shared Systems Initiatives (LaSSSI) Group

October 1, 2006

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The members of LaSSSI strongly support ExLibris in their efforts to both document and open discussion on these issues. While LaSSSI is a formal group with a defined membership and formal communications channels it is felt that in order to fully meet the objectives of a single (or better supported) shared system model, it occurs to us that those Shared Systems that are not a part of LaSSSI also need the opportunity to react to this document. (This includes Shared Systems in Europe as well as those in North America that have not been included so far in LaSSSI - NovaNet, PALNI...) Further, during discussions at IGeLU, we have learned that there is another shared system model that uses a z300 table. We have curiosity as to the potentials and implications of how that being used. A better understanding of this model might also have implications or potential for use by the LaSSSI members. This has raised an issue of how will the proposed single model meet the needs of those sites using the z300 table? Have any other special pieces of code been developed for specific shared systems that would be affected by your proposal?

Comments are as noted within the text of the document. However, it is very clear that the Shared Patron File is one area of great concern and already contains issues for LaSSSI members.

LaSSSI's perspective is that the flexibilities permitted for the handling of bib records be extended to patron records. This includes the option to share patrons across all ADMs as well as the option to permit duplicate patron records. In the latter configuration, duplication of the patron record key must be allowed.

The ability to have separate patron files by ADM was lost after version 15.5, but CCLA successfully moved to version 17 by turning User Sharing to "N" in tab100. Of course, this option eliminates the possibility of using PDQ or Universal Borrowing in the future. Furthermore, the total running time of CCLA's PLIF loads has increased from six hours to complete the load for all libraries to 36 hours – a six-fold increase. This represents a big increase in our cost of ownership associated with the loss of version 15.5 functionality. The attached spreadsheet in Appendix B shows this increase in detail.

LaSSSI members eagerly await the opportunity to further discuss these issues in a face to face dialogue environment in Boston October 30-31.

USMAI Comment

We would like to have EL specifically address Service Pack applications. Sounds like currently you need to move local changes to each environment manually. Do they have a suggestion for automating this work where appropriate?

1. Objective

The objective of this document is to outline the features and recommended setup of ALEPH 500 for multi-institution shared systems. The intent is to present a single model that can be used by various shared systems. The guidelines that we kept in mind are:

- Providing a comprehensive solution to the required shared system functionality

- Enabling resource sharing

- Optimizing TCO

The benefits of having the large shared systems run under a common, single ALEPH architecture are:

- Ease of support and problem analysis

- Ease of applying service packs and upgrades, including common testing procedures

- Ease of configuration

- Reduction of operations costs

- Sharing common experiences (between the Shared Systems sites)

Presenting a single model is not a simple task, since we have found a basic dichotomy in system management at different shared system sites.

- Some sites have central system administration and control, where the center performs system tasks for the various libraries. These sites want simple, central procedures.

- Some sites, although they have central system administration and control, want the libraries to perform some of the system tasks. These sites want careful control, to ensure that each library is limited to handling only its own files and configuration.

It is a challenge to meet these two opposing approaches to shared system management in a single model.

LaSSSI Comment

(IMPORTANT)*****In either approach (and in the overall Objective) a key need is the capacity to EASILY deal with replicated tasks/tables across many libraries. This should be specifically listed as an objective of the "model shared system approach." LaSSSI members all share a concern about the very large number of replicated tables that are essentially the same. Is there not an approach that would focus on exceptions for multi-libraries within a larger scheme of common data? Shared systems are forced to duplicate and maintain multiple copies of tables that are for the most part all the same -- and then pour over the entire table for the one or two items that differ among ADM's.

2. Background

USMAI Comment

We have a number of questions related to how intra-consortial borrowing will work in this environment. Our questions are actually very different from those above. We want to move items within our consortium, for communication outside the consortium we are currently using Illiad. Also our process is now seamless, with no extra steps whether the patron or item belongs to the circing campus or not.

We'd like to understand how this will work in multi-adm, here are some scenarios:

1. *If a patron from campus A walks up to a campus B circ desk and wants to charge out an item from campus B, what is happening? Does the circ person need to log into campus A circ to perform any of the tasks or see any of the information about the patron? Will the borrower status in the global record be used?*

2. *What if they are renewing a book from campus C? Same question about what the circ person needs to do to make this happen.*

3. *What if they are renewing a stack of books from various campuses, some that they have local records for and some not?*

4. *What if there is a hold on an item from a patron on campus D? Will the circ person be alerted to this?*

The description of PDQ (in the documentation and in a presentation by Carmit) in terms of patrons being able to place holds on titles across the consortium and have the item delivered from any library seems to meet our needs. We will begin testing this in a one ADM model first when we begin work on the upgrade to Aleph 18 in January.

2.1 ALEPH Version

Existing functionality described in this document relates to Version 18. These are described here for the convenience of LaSSSI members who are not yet familiar with some of these enhancements.

In versions 15 through 17 some configuration and control was moved from the central environment (alephe) to the separate ADM environments, in order to gain library control. In order to enable a combination of central and local control, the system aggregates the tables from the multiple ADM libraries, and treats them as if they were one table under alephe. This design means that these tables can continue to be controlled centrally in alephe, OR in the local environment. This was the first step in the underlying principle of providing central and local configuration. However, this design of "aggregation" does not provide for inheritance; i.e. overriding particular global parameters with local parameters, within a specific local environment.

The functionality related to shared systems currently available (ALEPH V18) is detailed in Appendix A.

2.2 Resource Sharing

Libraries have a tradition of resource sharing, through Interlibrary Loan. ILL is not new; it pre-dates automated library systems by many years.

Based on our experience with existing shared system sites, Ex Libris assumes that there is a higher degree of resource sharing between the libraries within the shared system than with external libraries.

Ex Libris recommends using Direct Consortial Borrowing (called PDQ in ALEPH), rather than Interlibrary Loan, for resource sharing among the libraries of a shared system. The two resource sharing modules share similar functionality. The differences are:

- DCB is "lighter", puts less demands on server resources, than ILL.
- In DCB the actual item is checked out to the end-user; in ILL the actual item is checked out to the library (the ILL Unit), and a temporary item is checked out to the end-user.

LaSSSI Comment

Ex Libris assumption about sharing within Shared Systems being greater should not drive the "separation" of resource sharing products. The idea o f ILL and PDQ being separate products and not built within a single and larger resource sharing module complicates resource sharing in the shared system environment rather than simplifying it. Considerable study is required by LaSSSI to truly understand the operational aspects of PDQ and how they

may be used within LaSSSI member environments. The introduction of the Shared Patron file has also complicated options that should be open to all – i.e. PDQ cannot be used by non-shared patrons.

Specific PDQ questions from one LaSSSI member trying to better understand PDQ include:

1. *When a hold is filled, is the item immediately checked out to the patron? Is delivery time (both to and from) calculated into the due date?*

2. *How does the software know whether to place a hold request or an ILL request? Are both choices displayed and the patron needs to select one?*

3. *If an item is not available within the consortium, will the software use the hold request information to automatically create an ILL request? Or does the patron need to re-enter information in another form?*

4. *How can delivery of the item be tracked in the hold request scenario?*

5. *Libraries want detailed information concerning borrowing and loaning for ILL statistics. How does PDQ track holds from patrons registered at another library? Are there counts by library (patron A borrowed from library C, for example) added to the circulation logger?*

6. *What impact would there be to set up and tables? Particularly, pc_server_defaults,www_server.conf,tab_hold_request,tab_hold_request__form, tab100, tab15.eng, tab31 and any others that might apply?*

2.3 Institutional Privacy

Even though the institutions in a shared system have agreed to cooperate and to share resources, there are some areas in library management where privacy must be maintained. These relate mainly to financial matters, and are concentrated in the acquisitions functions.

LaSSSI Comment

Patron Privacy is an area of high concern in shared systems. In general privacy continues to grow in ways that can cause political concerns as in increasing numbers of situations as people become more aware of their information being within online systems. An expressed area of concern is how patron privacy can be maintained within PDQ?

In the Acquisitions module the word 'autonomy' might better describe what institutions need for the acquisitions functions instead of privacy. Nearly everything that is purchased by the library is seen in the catalog and is reported on various reports eventually. Each institution, though, does need to manage its budgets without fear that another institution could spend from its budgets.

2.4 Institutional Autonomy and Branding

USMAI Comment

Currently we do not have individual campus interface design. It's possible that our sites might want to reconsider this given the opportunity.

Within the framework of the shared system, each institution wants to retain its own special "flavor", particularly as relates to the face of the system, the OPAC that is presented to the end-user. Each institution wants to be able to present its own section of the OPAC, with its own particular "branding".

All communications with the public (patrons, vendors, etc.) also require a degree of branding.

LaSSSI Comment

Flexibility in branding and co-branding options is high on the minds of LaSSSI members. Branding options are needed at both the system and ADM (or sub-library) levels. There is also concern about how easy branding options are to both implement and to maintain.

Currently, it is felt that even the "base" function still needs some fine tuning. There still seem to be too many cases where the system drops out of the current base (forgets which base it is suppose to be in) to the default, which in our case is the "all institutions." This does tend to confuse the users.

It would be useful for the documentation to identify which Web OPAC pages relate to local branding. It would also be helpful to know just how much difference there can be without affecting the functionality of the Web OPAC.

A way must be provided to move from version to version more easily accommodating the localizations that have been done. The best way to allow us to do this is if local Branding could be accomplished via a plug-in.

3. Proposed Structure

USMAI Comment

- *One question about reserves libraries, will it be possible to have more than one per institution? We will have a single institution with multiple reserve sites.*

- *Not sure where to put this, but we currently have a problem with limits in tab_library_relations, it's actually the opposite problem of having a limit to the number of bibs "related" to one ADM. Is there a limit to the number of ADMs "related" to one bib library?*

- *Can we assume that the serial subscription file is included in the Acq box on the diagram?*

- *Currently we keep our collection codes in tab_40 in synch between our HOL and ADM libraries. Will that no longer be necessary?*

The proposed structure of the ALEPH 500 shared system is:

- A single bibliographic database, with records contributed by each library.

- A holdings database, parallel to the bibliographic database.

- Optionally, one or more authority databases.

- Multiple "ADM" databases, one for each institution in the system. This database holds all acquisitions, serials and circulation data, with the exception of "global" patron records.

- Optionally, multiple "Course Reading" databases, one for each institution in the system (parallel to the ADM database).

- Staff passwords and authorizations

- Global patron records

LaSSSI Comment

More time and considerable dialogue is needed by LaSSSI and Ex Libris considering the full implications and operational aspects involved in moving from their current model to one of the proposed supported models. Examples of both potential positive impact and ongoing concerns are noted below:

Positive

- *A Single database and shared bib file would appear to be simpler and require less maintenance and make migrations much easier;*
  - o *single application of service packs*
  - o *single oracle instance*
  - o *single aleph instance*
  - o *union catalog is byproduct of combined bib file and not a separate system*

Concerns

- *Greater risk of one campus affecting others since all are "connected"*
- *Editing system files, such as pc_server_defaults and www_server.conf – by campuses*
  - o *Currently we allow some editing by campuses of these files*
  - o *In the proposed model, we should not allow campuses to edit anything in $alephe_root. There is too much that can be screwed up.*

Indexing

- *It appears one set of indexing files will need to be used for all campuses*
- *We will need to review all campus indexing tables and recommend a super-indexing scenario that meets the needs of all campuses;*
- *Reindexing will take forever if every change for a single campus will need to be run for all campuses on a server*
- *How will the z13 record be created? -- Will it be from one set of files (tab22, tab_expand_join_simple) and all campuses need to use the same z13?; This effects info on overdues, vendor letters, other printed products, the web basket, and likely more.; There are currently many variations in SUNY*

Tab_type_config

- *How will all the campus-specific files be treated?; These are very specific to each campus and should be retained*
- *tab_type_config*
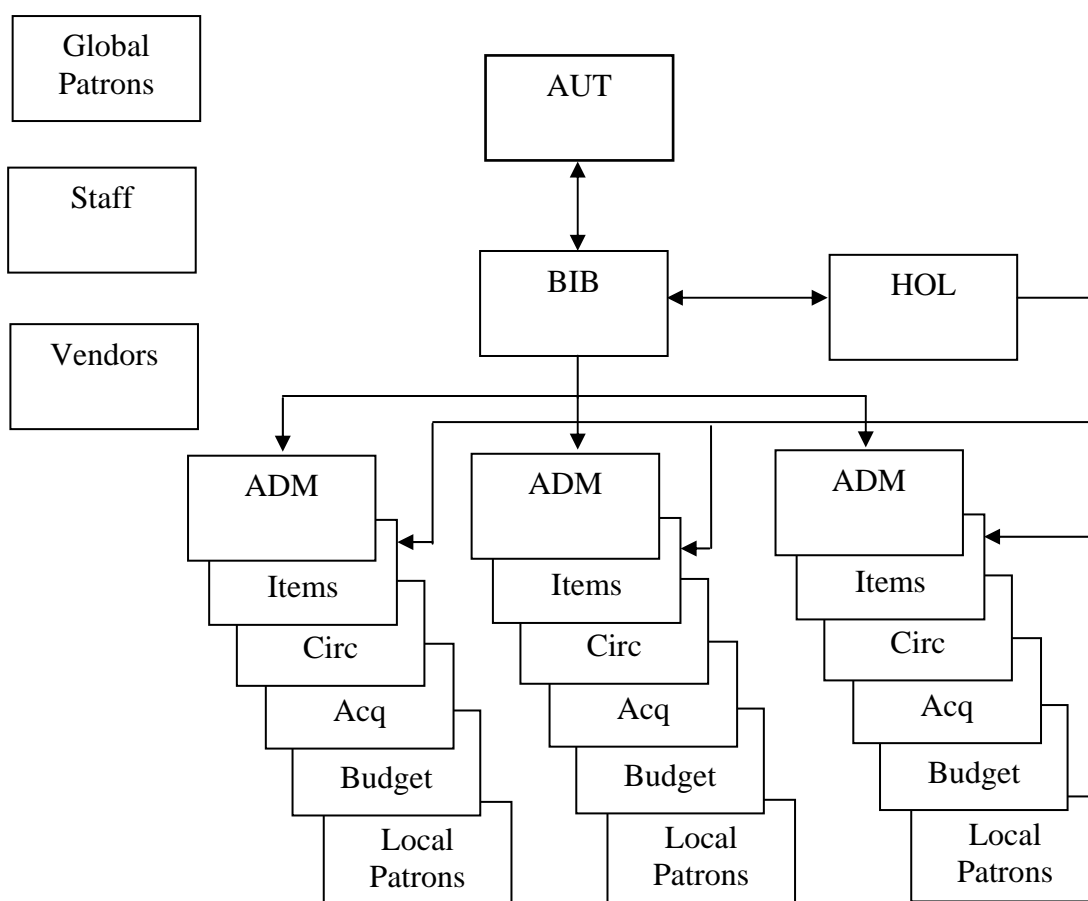- *tab_type_config_962*
- *tab_type_config_typ*

```
┌──────────┐                        ┌──────────┐
│  Global  │                        │   AUT    │
│ Patrons  │                        │          │
└──────────┘                        └────┬─────┘
                                         ↕
┌──────────┐              ┌──────────┐        ┌──────────┐
│  Staff   │              │   BIB    │←──────→│   HOL    │
│          │              │          │        │          │
└──────────┘              └────┬─────┘        └────┬─────┘
                               │
┌──────────┐                   ▼
│ Vendors  │         ┌─────┬─────┬─────────┐
│          │         ▼     ▼     ▼
└──────────┘
```

Diagram — Proposed Architecture

The following sections describe each of the above in more detail.

4. Bibliographic Database

The single bibliographic database for a shared system can contain single or multiple bibliographic records for each title.

Ex Libris recommends multiple records per title, with a union view imposed on the catalog to display a single merged record to the end-user in OPAC. The advantages of this model are:

- Record update control is simpler
- Cataloging agreements and central cataloging control are not required
- Libraries can use local fields
- Each library can have its own view of the record in OPAC

Most of the Ex Libris LaSSSI sites that share a single bibliographic database have opted to use this model.

4.1 Single Bibliographic Record Per Title

When a single bibliographic record is used, all libraries must agree to common cataloging practices. When following this practice, there are two features that can be used for record update control:

- Cataloger permission level – a low-level cataloger cannot update a record that has been updated by a higher-level cataloger.

- Field permission – it is possible to limit the fields that a specific cataloger is allowed to update.

A central authority can perform quality control of the record, using the standard permission mechanisms. Subject to staff permission, multiple records can be merged.
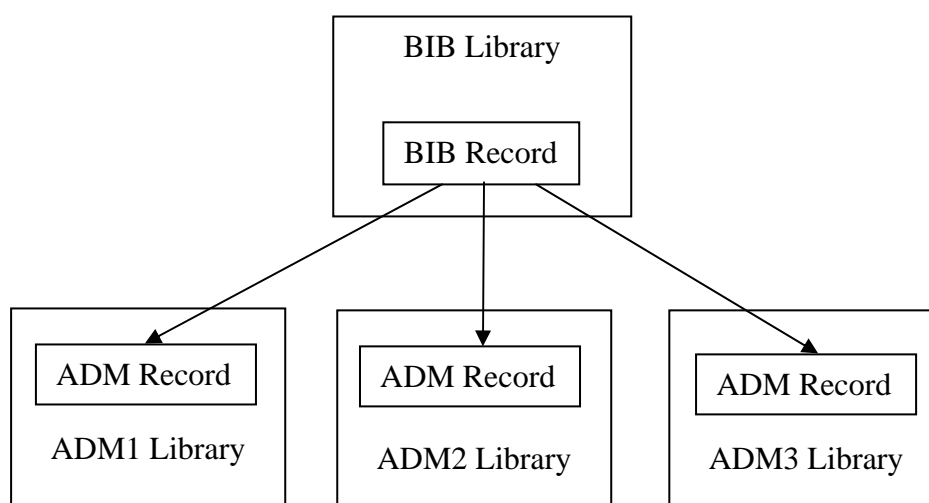
```
                        ┌─────────────────────┐
                        │     BIB Library     │
                        │   ┌─────────────┐   │
                        │   │  BIB Record │   │
                        │   └─────────────┘   │
                        └─────────────────────┘
            ┌────────────────────┬────────────────────┐
 ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐
 │ ┌──────────────┐ │ │ ┌──────────────┐ │ │ ┌──────────────┐ │
 │ │  ADM Record  │ │ │ │  ADM Record  │ │ │ │  ADM Record  │ │
 │ └──────────────┘ │ │ └──────────────┘ │ │ └──────────────┘ │
 │   ADM1 Library   │ │   ADM2 Library   │ │   ADM3 Library   │
 └──────────────────┘ └──────────────────┘ └──────────────────┘
```

Diagram – Single Bibliographic Record per Title

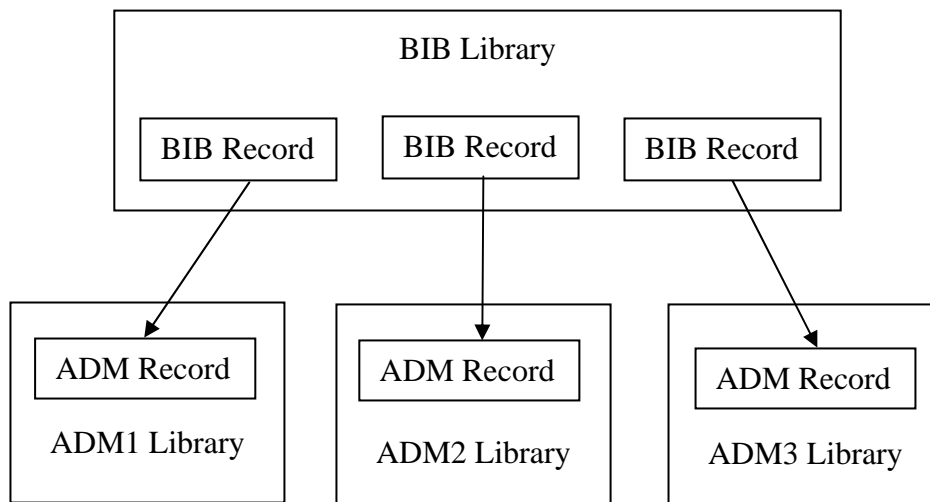Diagram – Multiple Bibliographic Records per Title

4.2 Multiple Bibliographic Records Per Title

Multiple bibliographic records allow autonomy and independent cataloging for each cataloging center. The cataloging center can be, for example, a single institution, a single library, or any administrative group within a single institution. The public views a single, logically merged record for each title in the WEB OPAC.

Each record has an "owner"; each cataloger is assigned "owner" permission in his password (using the ALEPH Staff Permissions function), and is limited to updating only those records that belong to a specific "owner".

Cataloger permission level and field update permission are also applicable when permitting multiple bibliographic records per title.

Adding a new group of records is a relatively simple procedure; the records are immediately available, even before they are analyzed and indexed for de-duplication (union view). The "owner" field identifies records for retrieval, and for retrieval control.

```
                          BIB Library

     ┌──────────┐   ┌──────────┐   ┌──────────┐
     │BIB Record│   │BIB Record│   │BIB Record│
     └──────────┘   └──────────┘   └──────────┘


     ┌──────────┐   ┌──────────┐   ┌──────────┐
     │ADM Record│   │ADM Record│   │ADM Record│
     └──────────┘   └──────────┘   └──────────┘
     ADM1 Library   ADM2 Library   ADM3 Library
```

USMAI Comment

At this point we want to retain the single shared bib. record. We would like to see Union View improved to include all available items displays. Currently it is limited to 2 types. (We have other uses for Union View).

5. Holdings Records

There is a single Holdings database related to the Bibliographic database. Each bibliographic record can have one or more holdings records. A Holdings record is specific for a single sublibrary + collection, identified in the mandatory 852 field. The 852 field cannot be repeated; therefore, different sublibrary + collection requires separate holdings records.

The item and serial subscription records can be linked to holdings records.

USMAI Comment

Will anything change with our "superholdings", i.e. HOL records with bib. only information? Also we were wondering if there would be a mechanism for one institution to view another's HOL record to see the publication patterns?

LaSSSI Comment

In some LaSSSI environments the item and serial subscription records MUST be linked to holdings records.

6. Authority Control

All records in the Bibliographic database are controlled by the same Authority database links. Control is possible only through different types of fields (tag + indicators), which can be indexed in separate browse lists. Each browse list can be controlled by a different authority database. For example:

- 6XX-0 (LC subjects) can be indexed in the LC subject list, and linked to and controlled by the LC Names and Subject Authorities

- 6XX-2 (MeSH subjects) can be indexed in the MeSH subject list, and linked to and controlled by MeSH Authorities.

It is not possible to have separate authority control per library, or institution, or owner.

What happens to purely local records? [they go in, but is there a way to tie them to a specific record? -- we might have to come up with our own set of indicators for linkages]. Also, a single authority file probably means more commitment to upkeep on the central office side....

USMAI Comment

This fits into our current plans to have one LC and one Mesh authority file.

7. Institution Library Environment (ADM)

Each administrative institution is a separate ADM library in ALEPH 500. The ADM library is the axis for defining a library environment, which includes the ADM, BIB, ILL and Course Reading libraries.

LaSSSI Comment

The initial set up as well as the ongoing maintenance of the number of tables and repetitive tasks remain a concern of LaSSSI. It is felt that there is far too "elaborate" a setup required for ADM's for all campuses which rely on aleph tables and "global/local" patron schemas -- separate ADMs ok for batch queue but only a single queue for bib library.

8. Staff Authorizations

All Staff authorization records are held in a common pw_library environment, and share a single Oracle database. Special features facilitate control at the level of each ADM environment, even though the data are shared.

The required functionality is already in place. Please see Appendix A for details.

9. Acquisition Orders and Budgets

Each institution has its own Oracle tables for acquisition Orders and Budgets.

USMAI Comment

This would be a huge improvement for our institutions.

10. Vendors

Vendors can be shared, or separate for each institution (ADM), but not a combination. The vendor_library environment variable in aleph_start defines the location of the shared Oracle tables. The ADM libraries should have VENDOR-SHARING=Y in tab100 in order to filter out the vendors that have not been specifically assigned for use in the ADM library.

11. Currencies

Currencies and Exchange rates tables (Z82 and Z83), which are currently held separately in each ADM, should probably be system-wide. This proposal should be discussed with the LaSSSI members.

While discussion is welcomed, general consensus at this point supports these tables being systemwide. It is recommended that this issue be discussed at length with European Shared Systems that may be affected in a different manner or scale. It should be noted however, that exchange rates should also be considered as a system wide option.

USMAI Comment

We have a system wide table now, but we don't think anyone is using it. We'll have to check into this. Being shared doesn't seem to be a problem.

12. Patrons

LaSSSI Comment

In addition to the comments at the beginning of this document (page 5) the area of Patrons and the Shared Patron file is one of the highest points of concern and need for dialogue. See the combined comments following this section.

USMAI Comment

We will not be using Aleph ILL at this time, so the problem of assigning a default ILL Unit is not a problem for us. We don't currently have multiple addresses for our shared patrons. This proposed enhancement seems very complicated and hard to implement.

The global patron records (Z303, Z304, Z308, Z353) are resident in the system-level usr_library. The local patron records (Z305), which set the patron's circulation privileges in the sublibraries of a single institution (ADM environment), are resident in each ADM library. There can be a special Z305 "ALEPH" record resident in the usr_library. It is required for Direct Consortial Borrowing.

Within the above structure there are two options relating to patron registration – sharing and non-sharing. Each institution in the shared system determines whether its patrons are shared or non-shared.

Non-shared patrons have separate global records for each institution in which they are registered. They can be viewed only by staff in the specific institution for which they are registered (including the Patron List), and the patron must choose the login library when logging in to the WEB OPAC. The library can be defaulted on the specific library's WEB OPAC pages, and the patron will not be required to choose.

The non-shared option was originally intended for special institutions such as military or police academies. However, it can be applied to any institution in the shared system.

Institutions that opt to have non-shared users cannot use the shared system's PDQ (cross-intuitional direct consortial borrowing).

Shared patrons have a single set of global records, used in common by all the institutions using shared patrons. At any one time, they have a single address and are assigned a single default ILL Unit.

In order that the patron be able to choose the ILL Unit that will handle a particular request, the ILL request page in the WEB OPAC will include a dropdown list of the ILL Units within the ADM libraries in which the patron has a local patron record. This enhancement adds further complexity to the WEB OPAC configuration; therefore, its necessity should be discussed with the LaSSSI members.

A single patron might have multiple addresses – communications from each institution (overdue notice, hold request available, etc.), should be directed to the address that is relevant to the institution that is issuing the notification, particularly when the communication is sent to an internal mailbox. ADM code should be added to the Z304-REC-KEY. Blank should valid, to be used when there is no matching ADM record.

This enhancement adds further complexity to the system choice of "current address"; therefore, its necessity should be discussed with the LaSSSI members.

12.1 Single/Multiple Registration

The "classic" shared system will have a single global patron record for each user. The patron might have multiple institution ID's; each of these is added to the patron data as alternative ID's.

One LaSSSI member has mentioned that the patron ID's are not unique across all the institutions in the shared system. This requires investigation with other LaSSSI members, and might require a software solution.

USMAI Comment

We currently add a prefix to local ids to make them unique. This will probably not change.

12.2 User-Sharing

In tab100 (USER-SHARING) each ADM library defines whether the library participates in a shared user environment or not. If the library does not participate in the shared environment, the ADM library code is included as part of the patron key, and the patrons display only when an operator is authorized for and connected to the same library. If the same person is registered both in a shared and non-shared libraries, s/he will have separate patron record keys. However, the same alternate key (i.e. barcode) can be used in both registration records. If the shared system includes "non-sharing" libraries, when the patron performs login in the OPAC, he is required to identify his library. When using the Circulation module, the user is connected to a particular ADM library, and therefore the system will know which patron record should be used.

12.3 Patron List Filters

The patron list in the Circulation module is filtered according to the connected library. If the connected library uses shared patrons, all the shared patrons display. If the library is set to non-shared patrons, only the patrons relevant to the non-shared library display. The Z353 table is used for filtering.

The p-cir-25 batch process which builds Z353, and the ongoing processes that affect Z353 have been adjusted to manage multi-ADM consortia.

We will want all of our sites to see all of the patron records. So this seems to work for us.

12.4 Update Control

Within the shared patron option, view and update control of the global patron records can be limited. The staff member must be logged in to an ADM library in which the patron is specifically registered (i.e. has a patron local record) in order to be able to view/update the records. This can be limited further to allow update only in the HOME institution of the patron.

Does this mean you can view all patrons, but not update them? Can you add a local record for another institution (we have patrons who come in with i.d.s for other institutions and are not yet in the system). To do so does the circ staff member have to be logged into that ADM?

12.5 Patrons Loader

The PLIF service is used to batch load and update patron records.

Care must be taken not to inadvertently delete shared patrons who are registered for more than one library. When using the "delete_bor_total" routine in the PLIF service, patron records will be deleted, but the global Z303 record remains in the database if the current-library is "shared" and there are local (Z305) records in the other shared library/ies.

Care must be taken not to inadvertently open a new record for the same person in a shared patron setup. The ID that is used for matching must be both unique and used in common for the same person at different institutions.

We currently load many campus files into our one ADM. To make this work we have written a complicated set of pre-processing programs that review what is in the file and make decisions based on expiration date and borrower status. We are guessing that this will still be necessary under a multi-adm/shared patron scenario.

LaSSSI members all share the concern regarding load times for PLIF.

The area of Patrons and the Shared Patron file appears to be an area that will require extensive discussion and dialogue between Ex Libris Staff and LaSSSI membership. There is grave concern about the impact of the shared patron file from CCLA, PALS, ODIN, and SDLN who all have duplicate patron ID's as a matter of course. The concerns already expressed by these shared systems have been seen by other LaSSSI members as a cause for concern in moving to the newer models being proposed. In addition to the limitations imposed by non-sharing patrons within the Shared Patron file (no PDQ for example) LaSSSI members are extremely concerned about the long term implications that the base design of this file represents – i.e. the overall marketplace is still primarily a single system, single bib, single patron file focused architecture. The shared patron file does not provide the options of the single bib file design with its logical bases that can host www servers, z39.50 targets, and pc server based applications…the shared patron file design appears to leave little option for the NCIP targeted message that assumes a single institution with a single patron file. CCLA lived with a shared patron file for 15 years with numerous problems that were solved

overnight by the separate patron files initially installed in 15.2. With the move to version 17 all of these problems reappeared. Only by setting tab_100 to User Sharing = "N" was CCLA able to move on. Now, however we cannot use user sharing options such as PDQ. SDLN and ODIN began with a shared patron file with their initial installs within Version 16 – they have been living operationally from the outset with issues that were expressed as concerns by CCLA as the shared patron file was initially proposed. If the shared patron file is to be absolutely required, then the same options for logical bases by ADM must also be supported! Discussion with European users at IGeLU also supported the need for more flexibility within the shared patron file, or better yet, an option for separate patron files. Further, the need for PDS to function with local LDAP approaches is a need to interface appropriately with the growing number of local institutional authentication interfaces that must become interoperable with the Ex Libris shared system environment.

There is also concern about patrons within the ILL and PDQ, approaches to resource sharing. Some of these questions and concerns are also listed below.

Examples of LaSSSI questions and concerns:

- *Paragraph 7: Is the intent for the patron to choose on an item by item basis which library will be used to manage their borrowing request? What would the ILL Library field in the patron global record be used for if the patron can choose a library to handle borrowing requests? What is the benefit of this? It's possible that in MnPALS, the patron would want to choose an ILL unit that resides on a different system (OCLC PICA, formerly FDI). Would this feature work across servers?*

- *Paragraph 8: How would this happen? Will there be an additional address type in the patron record for other libraries or ILL libraries? How would the from/to dates in addresses work in this environment?*

- *12.1: In MnPALS, patron id's are unique as long as we have prefixes that can be associated with one ADM.*

   Are the xxx50/z52 sequences still used for new patron record id assignment?

- *12.5: MnPALS has some libraries that create new records with new barcodes. The problem is cash transactions (fines/bills). Most libraries in our consortia pass financial data on to an institutional financial system. Fines/Bills to external patrons are not defined in the local financial system.*

CCLA
- *If we cannot use PDQ, would a special Z305 record still be needed/created?*

- *Non-shared users must be able to participate in ILL.*

- *I think that most libraries in shared systems have selected "shared" patrons, but do not actually share. In other words, when a patron has privileges in multiple libraries, duplicate patron records exist with ids made unique.*

- *As long as the ILL Units list is small (i.e., not all 28/72) that shouldn't be a problem?*

- *The patron does need to be able to select the ILL unit.*

- *Options such as this may make it easier to use truly shared patron records.*

- *Unless this (and the previous one) impact response time, I don't see an issue.*

ODIN

- *Echo PALS comment that "It's possible that in MnPALS, the patron would want to choose an ILL unit that resides on a different system..." It is highly likely that PALS and ODIN users would want to select a library in the other system.*

12.1
CCLA

Several shared systems have patrons who are registered at multiple institutions. They load duplicate records and solve the need for unique ids by making the patrons non-shared – or by applying an institution prefix to the id forcing uniqueness.

Allowing non-unique patron ID's (other than 00) and retrieving a "list" similar to the patron name list, for selection, might make it possible for us to have shared patrons

ODIN

There are systems where there are patrons with multiple institutions and one ID. A number of Students, faculty and staff at higher education institutions have associations with multiple institutions. In a Human Resources (HR) system shared by multiple institutions there is only one ID number for such an individual. These individuals can have only one 'home' library in the current design. The conflict is that the HR system number for the person can only be put in one record. The HR system number (the EMPL number in PeopleSoft talk) is the number that the PLIF loader matches against to update the patron's record. However, libraries have operationally had to create additional records for patrons like described. (It has not been practical for some libraries to try keep to a shared record.) These additional patron records cannot be updated via the PLIF for obvious reasons.

CCLA

In the shared patron file environment, run times have significantly increased for individual institution's PLIF loads. When we had separate patron databases in 15.5, run times per institutions were much more manageable. With the Shared Patron File run times have become much less manageable for the large number of institutional loads that are inherent within the shared system.

12.3
CCLA

Selecting the option for "local patrons only" is used to limit the view to local patrons.

VCCS

We find that making everyone searching the global records is important if we want to avoid duplication.

12.4
ODIN

In the patton with a multiple institution and one ID scenario one of the libraries will be the home library (when each library might feel that they are the home library or the patron might believe that a library other than the one that has become the home library is the correct one.

12.5
VCCS
If there were someway to reduce the processing when running PLIF it would be nice. Right now I have to run 23 batches every time I load students. Since the job runs "within the ADM' environment each batch has to be ADM specific. In the global environment, however, it would seem that the global record should drive things with the "local" record(s) going off to the correct ADM as required.

SUNY
I'm somewhat concerned about the alerts in the patron loader section ... "Care must be taken not to inadvertently open a new record for the same person in a shared patron setup" -- we know our current folks don't always take "care" What is meant by this? Would we have that?

The model calls for shared patron file in the USR00--this will greatly affect PLIF. ALL id's (including local id's) will have to be unique, great potential for problems

Concerning PLIF files – will likely need to be sure all fields are completely and accurately filled out, such as HOME-LIBRARY. This will be especially true if there are shared patron records. Therefore, the need and additional cost of ownership has been for us to write pre-load verification utilities.

<u>USMAI Comment</u>

We will want all of our sites to see all of the shared patron records.

We are not sure what the options will be in this model. Can we have all staff view but not update all patrons? Will staff be able to add a local record for another institution (we have patrons who come in with i.d.s for other institutions and are not yet in the system). To do so will the circ staff member have to be logged into that ADM? How will these changes affect circ staff being able to see patrons/holdshelf items/intransits/loans for the patron standing in front of them no matter what their affiliation?

13. Batch Processes

13.1 Scheduling and Analysis Tools

A shared system has many batch queues that must be checked for errors, exceptions and problems by the central office. This task is a heavy burden on the central office resources. Ex Libris proposes to improve this by better scheduling and analysis tools, including "alerts":

- Scheduler
    o Improved interface for scheduling services
    o Better scheduling options (e.g. monthly)
- Log Analyzer

    This main effort will be modifying current Log Files to contain the information that is required by the log analyzer, batch queue, summary logs and alerts.

    The log files should include, at least,

    o Elapsed time
    o Success/Failure
    o Number of records processed

- o Number of records output to print

- o Number of records updated

- Improvements in the Task Manager Batch interface, displaying the information above, and adding filters, such as:

  - o Filter by Success/Failure

  - o Filter by last nn hours/days

  - o Filter by job type (e.g. circulation, acquisitions, serials)

  - o Possibility to view across ALL libraries (BIB, HOL, ADM, etc.) for ADMIN users.

- Alerts

  The system will email/rss/… alerts for selected jobs and conditions. There will be configuration to determine which alerts are sent to which persons. The intention is to include a link from the alert to the log display.

LaSSSI Comment

Batch process in general is an area of major concern to LaSSSI from a Total Cost of Ownership perspective. This area, along with Patrons above, should be a focused area of discussion in Boston. A sampling of LaSSSI discussion on this issue is noted below for illustrative purpose:

PALS

- *Scheduler: Does the scheduler take the place of the job list? Will the scheduling options include daily, weekly, monthly, quarterly, annually? Will the scheduling options include specific days of the week, with the ability to choose Tuesday and Thursday but not the other days?*

- *Log Analyzer: In a shared system, the log files can become extraordinarily large, and get to the point where they are not useful because they can't be easily searched or read. Our suggestion is to add a parameter that will narrow down the log files by only clearly reporting errors and by indicating successful processing at site determined intervals, i.e., every 10,000 records.*

- *Improvements: Does this mean that the log files for each job will be available to the ADM's in addition to the report or notices generated?*

- *Batch processing: The serial batch queue is a problem for shared systems. Is there some way that a multi-threaded batch queue could be created so that job two doesn't have to wait for job one to complete?*

- *Batch processing: Our system can never use Catalog Print print-04 because of the size of the database. Even for small sets of records, the entire Z01 table is read. This can take days for us, and in the meantime the batch queue waits. We also cannot use Print Catalog Records with "Non-preferred" headings print_05 for the same reason.*

- *Batch processing: In many of the services forms, there is an option to Print to ADM. Is this option available in all services forms? And does it work reliably?*

- *Batch processing: Many of the services create files in alephe/scratch which are used as input to subsequent services. Presently, the file name can be whatever the creator assigns. With a shared aleph/scratch has consideration been given to automatically add the ADM symbol to the file name? If there is no way, it's quite possible that any filename could be used by more than one ADM (or sub-library), which would result in overwriting another ADM's(or sub-library) file.*

VCCS
I generally agree with the other comments. How to make the logging function more efficient would be a significant value, particularly the number of logs that end up in the alephe scratch directory.

SUNY
p. 20 -- Batch processes "This task is a heavy burden on the central office resources." I believe that sentence says it all -- means we need folks who would be working on this [i.e. a single shared database won't necessarily cut down on our work -- it might actually increase it on a daily basis]

ODIN
Job List need serious improvement or replacement if that is what the "scheduler" is. Options such as daily, weekly, monthly, quarterly, annually as mentioned by PALS. As it is we have to swap out job lists for monthly jobs, ...

13.1
CCLA
The options below are useful, but if I understand this correctly, the number of batch jobs are not reduced with these enhancements?

I'm not sure that reducing the # of batch jobs is the answer. That might just amplify the problem when a job fails…..now what failed? And how do we correct it?

Also make it easier to clear the TM using the filters to select files for delete

(SUNY)
Improvements in Task Manager and Alerts (p. 21) – these will be wonderful to have!

14. Configuration

Ex Libris suggests a model that supports two-level configuration, using central configuration, with institution-specific overrides. There is a dichotomy in that some sites are controlled centrally and want simple, central update procedures, whereas other site are decentralized, and are concerned with control.

The relevant configuration files are:

- print forms
- html pages (web opac)
- GUI menus
- configuration tables (identifying the particular tables requires further analysis together with LaSSSI members)

- update of GUI client files (version check and update) problem has been reported by a LaSSSI member; this should be further investigated.

General guidelines for how this could be achieved:

- One set of global files, in alephe.

- Localization achieved by having an "override" file; for reasons of control, the override files are located in the ADM environment.

- The system "gathers together" the global + local files, preferring local when relevant.

  Examples:

  o WEB OPAC pages (www_f); currently the entire www_f directory can be locally placed in ADM, with location identified through www_server.conf, but all files must be in the local www_f.

  o form_eng, controlled by extension (ADM code or sublibrary code; Control cannot be at sublibrary level); would be best if update through ALEPHADM could require (or default) the extension.

  o Configuration tables

    – Requires investigation and brainstorming with sites to identify the relevant tables

    – Requires examining each and every table!

    – Some tables will be inherited in their entirety, whereas others must be broken down to section level (in order to accommodate NOT including particular lines from the general table).

    – It should not be required that the table be present at local or global level.

  Some examples that come to mind for placement in alephe, with override in the specific library are:

  o pc_tab_col.lng

  o pc_tab_exp_field.lng

Currently under development for version 19 is the continuing development of a friendly UI for configuration of some of the circulation tables. The configuration relates to the sublibrary level for library open hours (tab17 – done in v.18) and loan policy (tab15 and tab16).

LaSSSI Comment

We think this suggestion is headed in the right direction and we want to work with you. The area of configuration is a major one in large scale shared systems and constitutes a significant TCO issue. As one LaSSSI member puts it – "Centrally controlled sites don't necessarily want it more "simple" we want a way to "simply" replicate across many ADM's We can then edit if a few lines are different. For Example, tab15 and tab16 are often updated, but tend to have unique (non-replicable) parameters. Configuration is another area for significant face to face technical discussions.

Other specific questions and concerns in this area include:

- *When ILL is implemented in the client, will the ILL forms be included in the form_eng or will they continue to be in separate directories?*

- *Configuration tables: We suggest adding www_exp_field_eng.ill and tab_type_text to the list of the local/global overlay.*

- *All our users customize forms. Upgrade express generally doesn't upgrade any form that has local customization. With a large number of ADM's this makes for a monumental manual effort to analyze and fix forms in version upgrades. We need some automated process that at least attempts forms upgrades and reports on all failed results.*

- *Staff who are responsible for staff privileges in their own ADM should not be able to set higher privileges than the level at which they are set up.*

- *p. 23 -- "update of GUI client files problem has been reported by a LaSSSI member; this should be further investigated" -- this statement scares me (my guess it is related to version check and the inability to do it properly in a shared environment)*

USMAI Comment

This area is where we stand to loose the most in terms of efficiencies and gain the most in terms of users maintaining their own tables. We currently don't have the problem of multiple configuration files. We just have one set. Not sure how to get into the details of identifying relevant tables for global + local treatment.

Appendix A – Functionality Currently in Place

1. Staff Authorizations

All Staff authorization records are held in a common pw_library environment, and share a single Oracle database. Special features facilitate control at the level of each ADM environment, even though the data are shared.

USMAI Comment

We'd like to understand how this change would fit into the work being done with the ELUNA Permissions Task Group.

1.1 Institution View and Update Control

In order that authorization for viewing and updating Staff Privileges can be limited to a single ADM library environment, the ADM environment is defined in a field in the Password (Z66) record, a field called the "User Library". Users are authorized to create/update users within a single ADM environment only. Users are unable to view/create/update users that are assigned to a different ADM environment. Each user in the system can work within one ADM environment only.

An exception to this is an "ADMIN" user, a user who is assigned "ADMIN" as the "User library". The ADMIN user is not limited to a single ADM environment, and is therefore able to choose the ADM library when creating users who are authorized to create users.

Staff members that work in more than one ADM environment must be assigned a different username for each environment.

1.2 OWN Control for BIB and HOL Records

As mentioned above, in the sections on Bibliographic and Holdings records, the "owner" is used to control access to these records, using the "Cat. OWN ID" and "Cat. OWN Permission" designations in the Staff Authorizations record.

The control for the values for these "OWN" fields is set within the ADM library environment, in the library's ./tab/tab_exp_own.<lng> and ./tab/tab_own configuration tables.

- tab_exp_own.<lng> defines the valid values for Cat. OWN ID and Cat. OWN Permission, and is also used for display of the dropdown list.
- tab_own defines groups of OWN values (was formerly called tab_cat_own, and was defined in the BIB and HOL libraries)

1.3 Control Creation of ADM Records

In multi-ADM applications in which each ADM library has its own BIB record, the ADM record should be linked to the BIB record that belongs to the ADM library environment.

Therefore, a tab100 parameter, TAB100-ADM-OWN-CHECK has been added, to indicate whether there should be a check on the BIB record's "owner" when creating an ADM record.

If TAB100-ADM-OWN-CHECK = "Y", the OWN field in the BIB record is used to distinguish between ADM libraries. When using a BIB record to move to an ADM record (items, acquisitions), the staff user own permission is checked against the BIB record.

1.4 Record Display in Client Modules

The logged-in user is identified as "assigned for" a particular ADM environment (the "User Library"). In the client modules the system displays only the records that are relevant to the user's ADM Environment. This affects four tree displays:

- the Navigation Tree, which displays all the records related to a bibliographic record in the Overview mode in the client modules

- the Record Tree, which displays the records related to a bibliographic record in the Cataloging module

- the libraries listed in the ALEPHADM module

- the libraries listed in the "Select Library – Access Rights" window in the Staff Privileges interface

LaSSSI Comment

Staff authorizations and permission setting is complex by default within a shared system. Comments below reflect concerns about the complexity and flexibility needed:

In our shared system, each ADM is responsible for their own staff privileges. We need a method that will disallow each ADM from assigning privileges over and above what the original privilege record allows. For example, in order to use the Cataloging services menu as it's delivered, we need a way to set the ADM system librarian privilege records so that person can't allow a cataloger in the ADM to start indexing jobs. In other words, we need a way to inherit the deny settings in the privilege records created by an ADM system librarian who has master authorization for the ADM. We suggest adding the port number to the privilege record to ensure that the staff person logons to the proper pc-server.

Maintenance of staff privileges and accounts could be a real problem if all are in USR00.

USMAI Comment

Same question as elsewhere: how does this affect circ staff being able to see patrons/holdshelf items/intransits/loans for the patron standing in front of them no matter what their affiliation?

LaSSSI Comment

1.1
p. 25 -- looks like we would absolutely have to have separate username/passwords in order to work across ADMs -- right now we can cheat with "XXX" -- could we still cheat that way (by having the XXX name everywhere?

Staff authorizations: In the model presented (App A, pg 25), we will still need separate XXX accounts in each campus. An Admin account can only create/maintain user accounts in other campuses; it cannot do 'Aleph work' in other campuses -This is an observation, not a problem.

1.2 and 1.3
OWN fields (page 25)
Tables will need to be filled-out correctly -- May require XXX policy on what codes are used

Switch in tab100 must be set correctly – and must stay that way! -- IMPORTANT: Measures must be taken to be sure campuses do not change this switch; I would love to see this switch in another table – one that is less likely to be edited by campuses.

2. Control in Batch Services

2.1 job_list

The system aggregates all "job_list" files from the ./tab of all the ADM libraries, and deals with them as if they were listed in one ./alephe/tab file. However, there remains only one job_list.conf file (under $alephe_tab), which has general definitions for all job_list tables.

2.2 OWN Field for Update Control

There is a check of the record's OWN field vs. the user's OWN permission for the following batch jobs:

- p_manage_21 (Global Changes)
- p_manage_25 (Fix and Check Catalog Records)
- p_manage_33 (Delete Bibliographic Records Including Related ADM/HOL Records)
- p_manage_37 (Fix Catalog Records)

The check in the batch jobs is identical to the check made when updating a record in Cataloging GUI (i.e. /tab/tab_cat_own in the ADM library is taken into account). If there is a mismatch on OWN, the record is not handled by the batch job.

2.3 OWN Field for Retrieval Control

For p_auth_03 (List Unauthorized Headings), there is an option to filter the headings by OWN. The headings themselves do not have "OWN" identification. Therefore, the process examines the related bibliographical records, and retrieves the heading only if it has a bibliographic record with the OWN field specified for the process.

<u>*LaSSSI Comment*</u>

Clarification is needed for all LaSSSI members to understand these issues in a uniform way. Current questions include

1. *If there is one master job_list – either physically or virtually – how can campuses re-run reports or do testing that requires the job_list to be stopped and restarted?*

2. *It's not clear to me whether each campus will have its own job_list (in the ADM library or 50 directory).*

There is also concern about overall control in batch services – e.g. "I don't see any mention of "p-ret" functions or some of the indexing functions for batch jobs -- would it be possible for someone else to retrieve records which AREN'T theirs? (they can't change 'em, but I

wouldn't think they'd want them in their retrieval in the first place!) .... the only place where I see a retrieval limited by OWN field is on p. 18 -- and that's talking about p_auth_03."

3. WEB OPAC

3.1 www_server.conf

USMAI Comment

Does this mean we would have to run a pool of www servers for each adm? Right now we have one large pool for all our campuses.

The objective is to provide access to the Web OPAC within the environment of the single library. There is a basic assumption that an ADM library represents a single Web OPAC library environment. This environment includes the Web OPAC pages and Web OPAC defaults, such as base, sort options, email address, etc. Different server ports are used to identify different environments.

Using Apache, virtual hosts can be used to set up different URLs that will access the ALEPH OPAC through different ports. A separate URL is set up for each ADM library, and therefore each ADM library is associated with a specific port. There are no logical checks on the setup of virtual host/URL/port/ADM library.

A separate www_server.conf file can be defined under $alephe_root for each port, with the port number used as a file extension (e.g www_server.conf.8776). According to the port through which access was made, specific www_server.conf file definitions are active. Definitions in the port-specific file will override definitions in www_server.conf; in other words, only the exceptions need to be detailed in the port-specific file.

The individual www_server.conf files can be used to set local values for features such as email address for course reserves, number of "history" loans to display, default expiry date for hold requests, default base, etc.

Each specific www_server.conf file can contain a pointer to the location of the www_f_eng, www_r_eng and www_s_eng WEB pages. Assuming that there is a one-to-one setup of a port for each ADM, this achieves sensitivity of html pages per ADM. However, all WEB pages must be present under the specific www_f.

Whenever the server is initiated for a particular port, both the generic www_server.conf file and the specific www_server.conf file are initiated. The system is indifferent to whether or not a specific file exists.

In future versions of ALEPH, some of the default values that are currently set in the www_server.conf file will be set in tab100, and therefore naturally controlled by the ADM library. This move to using tab100 will be gradual, within the general development process. When this happens, upgrade tools will apply the individual www_server.conf.nnnn defaults to the relevant tab100.

In addition, default values that are set in aleph_start can also be re-defined in the www_server.conf file (such as Z39_GATE_PORT).

This feature can be implemented for the www_server.conf values only if the site is running Apache in mode_aleph_vir_hosts. Running virtual hosts and multiple ports in a single alephe setup will not take more resources than running the same in a multi-alephe setup.

3.2   WEB html pages (www_f_eng, www_r_eng, www_s_eng)

It is possible to define a www_server.conf file for each port (using the port number as extension to the name). The location of the WEB html pages for www_f, www_r and www_s can be defined in each individual www_server.conf file, using the environment variable "www_pages_directory". For example:

www_pages_directory $usm50_dev/usm50

In this case, *all* the directories: www_f_eng, www_s_eng, www_r_eng must be present under the path, and *all* the web pages must be there. The intention is to enable defining local pages for special pages only. The system will aggregate the general and the local pages, "preferring" local pages.

The local www_… files can be located in the ADM environment. Update access control is implemented through use of ALEPHADM, which is filtered by library environment. A user who is assigned to one ADM library is not able to access html pages of another ADM library.

3.3   Icons for Web interface

Location of icons can be defined in the same manner as described for Web pages, using the environment variable in the individual port's www_server.conf file:
setenv www_icon_directory $usm50_dev/usm50/

The icons will be searched for under: $usm50_dev/usm50/www_f_eng/icon directory. The intention is to enable defining special icons only. The system will aggregate the general and the local icons, "preferring" local icons.

LaSSSI Comments on 3. WebOPAC

There are numerous technically specific concerns expressed in this area. Face to face discussion in group dialogue would be very beneficial for a better understanding of these issues. Examples of concerns are noted below:

- *One topic that needs to be expanded upon is the ability to configure multiple pc_servers, oclc_servers and sip2_servers on different ports (z39_gates and www_servers are mentioned). CCLA used the same approach for the aleph_start.private file as the www_server.conf, but instead of using a port number as a file extension, CCLA used the 3 character ADM code. By defining specific ports and other variables in separate aleph_start.private files, we can run pc_servers, oclc_servers, sip2_servers, z39_gates and www_servers on different ports for each college. It appears that you could also have multiple pc_server_default files that can do some of the same things. Mankato and Palni are both running multiple servers on different ports in version 17. I'm not sure how Palni is accomplishing it, but Mankato is doing it similar to the way CCLA is approach this area.*

- *Paragraph 7: Tab100 is not necessarily 'naturally controlled' by each ADM. In our implementation, we have suppressed tab100 from the ADM's due to the patron settings. When an ADM wants to change a setting that doesn't involve patron settings, the central site makes the change for them. In fact, any setting that could affect the way the system works for the whole consortium is generally set the same for each ADM.*

- *We have log_bases defined at the sub-library level*

- *In this model each library has its own www_server.conf table, based on the assigned port. This will allow much flexibility for campuses to control setting such as the SFX URL, the amount of items that can display and the default search type. Campuses will share most of the HTML files, but it will be possible for campuses to have their own unique HTML files if functionally necessary. If I read this correctly, it will be possible to lock down some web OPAC files and make others available to campuses for editing. I like this model and have no concerns with it as proposed.*

- *Campus OPACs are for logical bases and it sounds unwieldy to have much customization since all have to share certain files like the .css*

4. GUI

4.1 pc_server_defaults

Configuration of pc_server_defaults per ADM library is accomplished in a manner similar to configuration of www_server.conf. There can be a pc_server_defaults file specific to a port, by adding the port number as an extension to the file name. All definitions in the pc_server_defaults.PORT file will override definitions in the generic pc_server_defaults file. Each ADM library will access the relevant pc_server through its "own" port. The \alephcom\tab\library.ini on each client will be set up accordingly. Therefore, the port through which the user accesses the pc_server determines which set of defaults that are in effect.

In addition, default values that are set in aleph_start can also be re-defined in the pc_server_defaults file (such as Z39_GATE_PORT).

USMAI Comment

Sounds like we can run on one pc server configuration if we choose to, correct?

4.2 Services Menus and Forms

Similar to the option to use multiple sets of web interface pages (per ADM), it is possible to define individual versions of GUI services menus and forms in the ADM library. The location of the pc_b_eng files can be defined in pc_server_defaults configuration file. There can be a different pc_server_defaults file for each port. The file can include a definition of the location of the pc_b_eng files, for example:

setenv pc_services_directory $usm50_dev/usm50/

The pc_b_eng files can be placed under the ADM library, and different pc_b_eng menus files will be displayed in the GUI, depending on the port through which the session is activated. In this manner, it will be possible to remove sensitive options (such as re-indexing) from some menus. It will also be possible to adjust dropdown choices to reflect the relevant ADM values.

The intention for further development is to enable defining special files only. The system will aggregate the general and the local files, "preferring" local.

4.3 Fast Cataloging

USMAI Comment

This would be an improvement for our campuses.

It is possible to set the BIB tags for fast cataloging (pc_tab_acq_fast_cat.eng and pc_tab_circ_fast_cat.eng) in the data_tab of the ADM library. In this way, each institution can define its own fast cataloging forms.

"B" in Col. 5 in the table (relevant only for the table in data_tab of the ADM library), denotes that the line defines a bibliographic record field. The tag is considered to be a BIB tag just as if it was read from the BIB library's table. If there is at least one "B" line in the ADM's table the BIB library's table is ignored completely. If there are no "B" lines, the BIB table is read as usual.

5. Sublibrary Addresses

The tab_sub_library_address table, which was located in ./alephe/tab, can be located in the ADM library's ./tab. The system first checks for the table in <lib>/tab, and if not found will search for the table in ./alephe/tab. Note that there is no inheritance, the file must be located in its entirety in one or the other location.

LaSSSI Comment

Concerns have been expressed in this area as to how can the entire table be in each ADM, when data for all ADMs is in the table? A possible alternative is noted by the comment: "Why don't you treat this as tab16 or tab17? In other words, why don't you place the tab_sub_library_address in the XXX50 only? I cannot imagine one tab_sub_library_address table that includes all the addresses for all NN ADM's. How would the system be able to tell which address to use on forms?

6. tab_base.<lng>

In version 17, development was initiated for enabling placement of tables in the specific ADM environment instead of in the system-wide alephe/tab . The system aggregates the tables from the ./tab of all the ADM libraries, and deals with the aggregation as if they were listed in one ./alephe/tab file. Systems that prefer to share an alephe/tab table can do so. This has been applied to the tab_base.<lng> table.

7. Z39.50 Gate

7.1 Definition of Z39.50 ports

It has always been possible to use multiple ports for the Z39.50 gate.

A specific gate port can be defined in www_server.conf and pc_server_defaults. Each ADM can set its own www_server.conf and pc_server_defaults files, per port. In the individual configuration file, the ADM can set the Z39.50 gateway port. For example:

setenv Z39_GATE_PORT   7934

7.2 Location of Z39.50 Configuration Files

In standard ALEPH setup the Z39.50 configuration files are located under ./alephe/tab/z3950_gate.

In order to enable configuration files per ADM, the setup is:

- in ./alephe there are z3950_gate_defaults.<port> files. Each file contains the location of z39_gate (instead of the standard ./alephe/tab/z39_gate). For example:

  setenv z3950_gate_directory $usm50_dev/usm50

- z39.50 configuration files (e.g. z39_gate_LOC.conf) in each ADM.

Configuration files can be present, or not (e.g. if access to a target is allowed in some ADM libraries, but not in others, the configuration files will be present only where relevant). In addition, each ADM library sets its own access password for the target.

The GUI client accesses the system through a particular port; this port is the connection to the relevant z3950_gate_defaults.<port> file.

LaSSSI Comment

User privileges have a significant impact here. For example, there can be separate pc-servers for each ADM. We can also setup separate service menus for each. Once a user has a system privilege record though, there is no way to restrict that user to a specific pc-server. We have a separate pc-server set up for our consortial office with a different set of services (like indexing is visible). There is no way though that we can keep a user with a valid privilege record from signing on to this pc-server port, and getting access to the restricted services. Since we can't keep the user from assigning himself indexing privileges and can't restrict him from a restricted pc-server, the system has a significant security hole.

A question drawn from above -- "each ADM library sets its own access password for the target." Are there shared systems needing this?

8. SFX

USMAI Comment

We have recently done some work to try and guess which sfx to link to from Aleph, when we brought up sfx in the catalog. This looks like we may not need to bring all that work forward into this environment.

There are Ex Libris shared sites in which some of the ADM libraries also use Ex Libris' SFX product. The SFX server can be sensitive to the ADM library, based on matching the Patron's Profile "ADM library" field against www_server.conf:

> **sfx_base_url_<ADM_LIBRARY>**
> e.g.
>
> **setenv sfx_base_url_usm50 http://demo.exlibrisgroup.com:9003/demo2**

in order to match the patron with the relevant SFX server.

LaSSSI Comment

A rep_change in version 17 has moved the SFX server address from the www_server.conf file to the system startup file. This then requires a single SFX server system wide?

9. Shared Systems Recommendation - for comment

OTHER Comments not considered in the document

ARC – Placing the entire shared patron file in each ADM is a problem. It opens up many data privacy issues, uses up too many system resources and in general makes patron reporting difficult. Only patrons associated to an ADM by the home library, a local z305 or cash/loans/holds for items of the ADM should be extracted as part of the ADM patron file.

This is an illustration of comments that LaSSSI and others have frequently made. Namely that ExLibris development staff do not work together to ensure compatibility across ExLibris product lines. ARC, although contemporary with the development of the shared patron file in Aleph version 16, was apparently designed with the assumption that patron files would continue to be found within individual ADMs.

I'm concerned about redundancy (i.e. if the server goes down everything goes)....also indexing times, batch processing times, response times, etc. It would probably make for easier upgrade and "easier" table maintenance, but on an ongoing, daily basis, is it better?

SUNY (ITEC staff)
See the following attachments for comments and questions regarding Oracle and Hardware considerations:

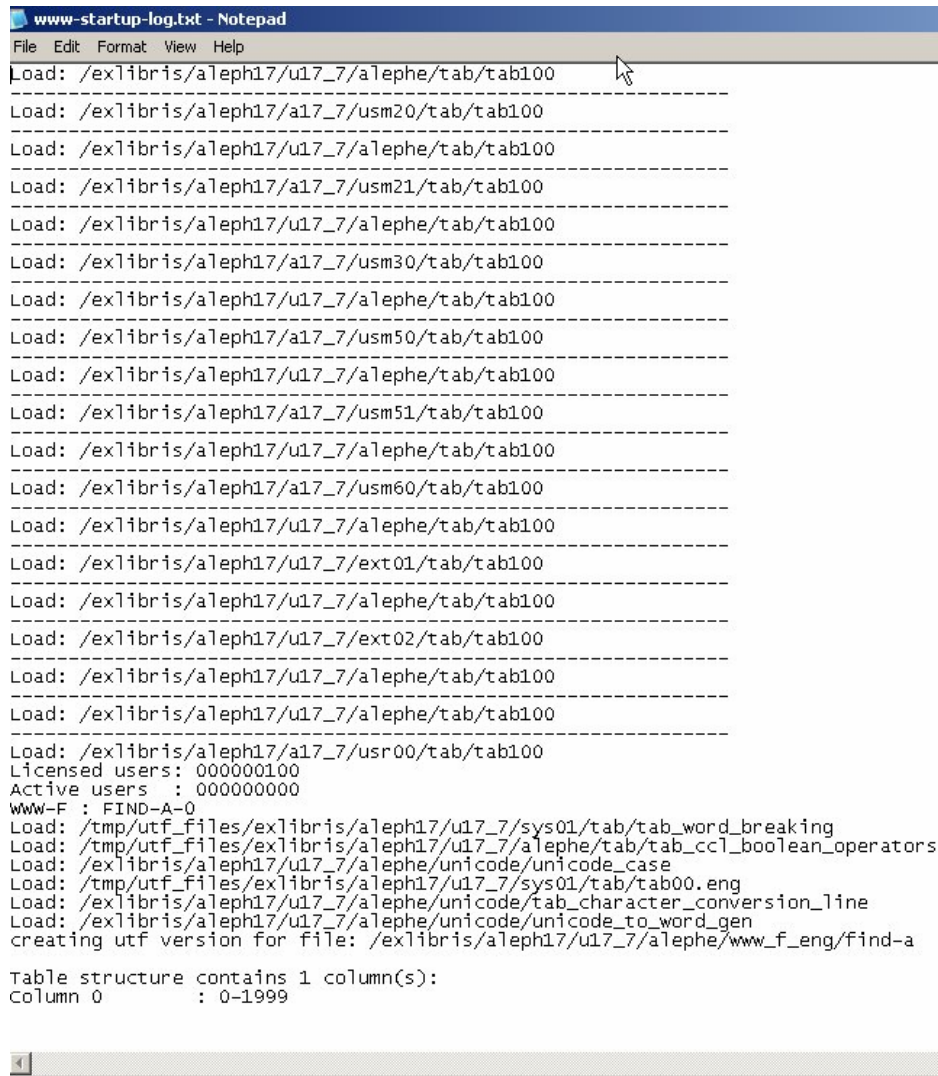SUNY ITEC Oracle Hardware 1.pdf
SUNY ITEC Oracle Hardware 2.doc

Quality Control (SUNY)
The recent experience of SUNY's v14 to v16 Aleph upgrades of 50 campuses highlights the importance of having a master code package when installing upgrades. SUNY ran into significant problems and spent significant time trying to make functionality work and then discovered (either on our own or by Ex Libris support) that required v16 files were not part of the v16 "a-tree" installation. The amount of time spent (both SUNY and Ex Libris) in resolving these issues underscores the importance of quality control and its impact on minimizing the total cost of ownership.

PALS Comments

Performance: Attached is a portion of a log file that shows how tab100 is loaded during the www startup procedure. This file shows that the alephe tab100 in loaded each time the next ADM, ILL and Course Reserve libraries are loaded. In our system, this means that the same table is loaded 219 times. Isn't there some way that the software could take advantage of cached memory so the alephe tab100 is only loaded once and referenced as needed? It's inefficient and time consuming to repeat loading the same table.

Upgrade Process: With each new version there is a requirements document that identifies the resources needed in order to successfully complete the upgrade. The two requirements document I looked at (version 17 and version 18) both had the exact same requirements for the server. We know there are different requirements from one version to another. For example, the only reference to memory requirements is to ask a representative. As Aleph software upgrades are planned, the systems requirement document would be more useful if it included, for example that the average amount of memory needed to run specific processes, such as 20G for each ue-01. The requirements document would be more useful if it represented what is really needed. Each shared system could then determine which parts of the server need to be increased before the upgrade process begins.

Appendix B – PLIF Load v. 15 and 17

School	Type	Number Fall 2005	Minutes Fall 2005	Total Time per Inst. 05	Number Fall 2006	Minutes Fall 2006	Total Time per Inst. 06	
BEC	personnel	2,181	2		2,306	16		
BEC	student	11,413	9	11	13,258	101	117	2 hours
BOC	personnel	1,491	1		2,483	18		
BOC	student	31,734	24	25	32,423	162	180	3 hours
CCC	personnel	1,656	1		1,694	6		
CCC	student	6,202	4	5	5,988	30	36	
CJC	personnel	180	1		185	1		
CJC	student	2,048	2	3	1,186	8	9	
DBC	student	13,541	12	12	10,578	58	58	
ECC	personnel	412	1		606	4		
ECC	student	9,396	8	9	10,484	44	48	
FJC	personnel	2,014	1		1,855	14		
FJC	student	28,131	24	25	32,065	120	134	2 hours
FKC	personnel	479	1		385	1		
FKC	student	1,989	1	2	1,819	9	10	
GCC	personnel	682	1		759	4		
GCC	student	5,901	4	5	6,321	25	29	
HCC	personnel	2,896	2		2,987	22		
HCC	student	20,120	18	20	24,047	150	172	3 hours
IRC	student	13,424	13	13	12,846	45	45	
LCC	personnel	245	1		246	1		
LCC	student	2,240	2	3	2,600	13	14	
LSC	personnel	562	1		686	3		
LSC	student	3,903	4	5	4,084	22	25	
MDC	personnel	5,164	3		5,087	24		
MDC	student	59,240	36	39	70,235	408	432	7 hours
MJC	personnel	1,415	1		1,379	3		
MJC	student	8,630	6	7	9,032	42	45	
NJC	personnel	497	1		529	3		
NJC	student	1,391	1	2	1,253	5	8	
OWC	personnel	419	1		445	3		
OWC	student	5,970	6	7	7,954	30	33	
PCC	personnel	1,794	1		2,064	12		
PCC	student	24,170	26	27	24,108	100	112	
PHC	personnel	542	1		570	3		
PHC	student	6,658	6	7	8,206	47	50	
PJC	personnel	1,245	1		1,145	8		
PJC	student	11,094	12	13	11,852	70	78	
PKC	personnel	338	1		396	2		
PKC	student	7,640	5	6	7,351	30	32	
SCC	personnel	1,282	1		1,269	6		
SCC	student	14,608	13	14	15,745	94	100	
SNC	personnel	1,187	1		0	0		**Not loaded yet in v. 17
SNC	student	14,506	9	10	15,034	27	27	
SOC	personnel	581	1		580	2		

SOC	student	2,860	3	4	3,732	16	18	
SPC	personnel	4,738	4		5,066	16		
SPC	student	24,141	25	29	25,837	118	134	
SSC	student	4,838	4	4	5,046	24	24	
TCC	personnel	1,222	1		1,270	7		
TCC	student	13,316	7	8	13,528	55	62	1 hour
VCC	personnel	3,648	4		0	0		**Not loaded yet in v. 17
VCC	student	27,569	22	26	30,477	163	163	
Total		413,543		341	441,081		2195	
			6 hours Total				**36.5 hours Total**	

Total Time to load V. 15 Fall loads: 6 hours
Total Time to load V. 17 Fall loads: 36.5 hours