Grant #LG-07-09-0123-09

King County Library System Performance Report Cover

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King County Library System Empowered by Open Source: An IMLS Demonstration Project Narrative

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Overview of the Project:

The "Empowered by Open Source" project has had a significant and irrevocable effect on the American public library community. The structure of this grant project was very simple: eight American public libraries signed on as grant partners with the strong, but non-binding commitment to pursue the Evergreen Open Source ILS as their system of choice. The King County Library System committed to matching the grant investment with software development aimed at strengthening the Evergreen system over the course of the three grant years.

Our assertion, as stated in our original grant abstract, was that "in order to survive and remain relevant, public libraries must have greater control over their library system software so they can optimize the work environment for staff and provide state-of-the-art services for customers."

We established two project goals:

- 1. Produce a free public library ILS that would be rich, functional, and a credible option for any library considering a new ILS.
- 2. Develop and strengthen a core group of early adopters who could support each other and support the Evergreen community to the extent that prospective libraries might have confidence in the community, the processes, and the resources in play for an open source implementation.

The results of our experiment are as interesting and diverse as the library grant partners themselves. Over the course of these three years, we have seen some of our grant partners' move from users of the software to developers of the software while other grant partners have stepped away from the Open Source choice and are using a vended product of a type that didn't exist when we began this grant.

Perhaps more importantly, the ILS marketplace has changed dramatically and it is in large part due to the pressures applied to proprietary vendors by the success of Open Source. While we have learned that an Open Source ILS is not for everyone, we have also learned that it is a viable option that has successfully challenged the status quo and provided libraries with many more options for managing their library systems.

Project Activities:

Evergreen Website Development

As a distributed community, it was important to establish a website to support our work. Initially, we created a Drupal-based website to support project activities (rscel.org)¹. Initially, the plan was to use Drupal as the platform for sharing resources developed by the grant partners. But, we found that partners were very reluctant to share their resources either because they felt their work was too specific to their environment or because they couldn't find the time to do so.

However, we were able to use the site as a staging platform for addressing problems that were identified. Three problems that we attempted to tackle were:

- Help community members find information about enhancements that were being pursued (but which had not yet been funded) so that numerous partners could be identified for sharing development costs. We called this the Enhancement Tracker, and;
- 2. Help community members find other people doing what they do (e.g. other Evergreen Administrators), and a way to identify similar institutions running an Evergreen system (e.g. another small rural library running Evergreen). We call this the Evergreen Initiatives Database, and;
- 3. Help community members find out more about Evergreen features and functionality so they could determine if it was even a viable option, to determine whether it was a better Open Source ILS choice than Koha, and to see if they should pursue a desired but absent feature as a new development project. We call this the Features Chart.

During the first year of the grant, it became apparent that our efforts developing the rscel.org site were seen as divisive rather than inclusive. Key community members felt that we were taking traffic away from the main Evergreen website (evergreen-ils.org) rather than helping to support the community and the community asset that is the website. As a result, we halted our work on rscel.org and switched our focus to evergreen-ils.org and to establishing an instance of that site based on Drupal for the purpose of achieving buy-in, community-wide, for the idea of transitioning the main site over to a Drupal platform. Drupal would allow for much more distributed control of the website and make it possible to develop some of the tools that had been identified (see above) as needed by the community.

A formal website development process was undertaken including conducting an inventory of the existing content, surveying the community, defining user personas/roles

¹ See the Resource & Sharing Cooperative of Evergreen Libraries website at http://rscel.org.

that were pertinent to the community, identifying the website needs of each persona, and seeking feedback from the community about website development priorities. Finally, we defined the functionality and content of the website that would support each persona, and we developed a website plan. This process took several months. Eventually, we received support from the Evergreen Oversight Board to launch a prototype of the new website based on our proposed plan. This website currently exists at drupal.evergreen-ils.org and it is still under development. The good news is that the Board has thrown their support behind the site so we are now in the process of identifying the best approach for moving from prototype to live website. Ideally, the site will be live in time for the upcoming Evergreen International Conference to be held in Vancouver in April, 2013.

As to the tools we developed on rscel.org, the Enhancement Tracker continues to be a work in progress. The Features Chart currently lives at features.galecia.com and because it tracks the features of both Evergreen and Koha, it may not ever live on evergreen-ils.org but the data that is stored there may be harvested for display on evergreen-ils.org. This project is also still in progress. The Evergreen Initiatives Database will likely be re-implemented much as it exists today on rscel.org on the new evergreen-ils.org website.

Evergreen ILS Software Development:

The cost sharing aspect of the grant involved KCLS contributing a matching investment in the development of the Evergreen software.

At the outset of the grant, the Evergreen software lacked some key elements that were deemed critical to the basic operations of many public libraries, particularly libraries of size.

A significant swath of functional development was done during the three-year grant cycle and the exact level of investment in each functional area is specified in the financial sections of this report. Below we will provide a general chronology of the software development done during the grant period.

2010:

Acquisitions sub-system

Though Evergreen had the beginnings of an Acquisitions sub-system in the original Georgia state implementation, Acquisitions was generally acknowledged as an aspect of the software needing significant work. Specific software elements developed during the grant were:

- 1. Batch receiving and invoicing of large order quantities.
- 2. Electronic ordering and receiving interfaces with vendor systems (EDI)
- 3. Receiving and copy editing interface developments to facilitate editing and updating of titles with many attached copies.

A common recurring theme throughout the Evergreen development process involved application interface design that, while functional at smaller volumes, proved either functionally or technically inefficient at larger volumes.

Circulation

- 1. Redesign of the Circulation interface used by staff emphasizing efficiency and minimizing keystrokes (e.g. consolidating seven screens used for patron registration down to one)
- 2. Changing the Circulation interface from a vertical to a horizontal orientation and optimizing use of screen space for better display of more information, more patrons, more copies, and more available data fields for both viewing and editing.

Load Testing

We knew from the outset that the transaction volume applied by KCLS would be substantially higher than any previous instance of Evergreen in the world. An early investment was made in developing performance load simulations that stressed Evergreen with artificially generated load in a multiple server instance.

2011:

Online Public Access Catalog (OPAC) Redesign

A variety of OPAC features required redesign in order to be adequately functional in the high-volume KCLS environment.

- Holds targeting: Changes were required in the way the system chose which system copy to use to fill a hold. In a large, multi-branch, system like KCLS, the burden of holds-fulfillment must be strategically distributed across the library branches to avoid one branch being disproportionately targeted.
- 2. Fines calculation: Needed to be modified to better handle high-volume.
- 3. Single Value Fields: This is a technically complex subject. Suffice to say that Evergreen relies heavily on database (Postgres) indexing tools, and the chunks of data indexed by the database were too large to allow for reliable faceting of searches. A development project was required to break the data chunks into smaller fields so that faceting could be implemented.
- 4. E-commerce. A significant development project was required to establish it.
- 5. SIP: KCLS deploys over 250 self-checkout stations as well as a large central sorting robot and automated self-check-in stations at 20 libraries. These ancillary services require adjunct systems to interface with the Evergreen ILS via the Standard Interface Protocol (SIP). The SIP interface in Evergreen required development work to achieve satisfactory performance at volume.

Template Toolkit

The original Evergreen OPAC was heavily reliant upon JAVA software, which in turn relied heavily on the resources of any given patron workstation and network that was searching the catalog from home. The local resources of the patron system and network were used for processing and rendering display of results to the patron screen.

This condition made standardizing performance expectations for the OPAC nearly impossible. Evergreen was particularly dysfunctional in performance for patrons relying on old and slow PCs and networks (or especially dial-up modems) at home.

Service to technologically challenged patrons at home was severely compromised.

KCLS sponsored development of the newer "Template Toolkit" OPAC which is now standardly used across most Evergreen libraries. Template Toolkit moved the burden of processing and rendering displays away from patron systems and back to the central servers, resulting in significantly improved searching performance.

Self-Checkout Display

The original Evergreen self-checkout display was very basic, with minimal information conveyed back to the patron. New self-checkout displays were developed that more clearly showed lists of items checked-out, displayed holds on-site available for pickup, and printed better receipts more efficiently and intuitively for users.

Telephone Notification

Even with a large shift toward email as a preferred medium for notification of available holds and overdue items, a significant subset of patrons had become accustomed to telephone notification. A telephone notification system using and open source product called "Asterisk" was developed and activated.

Miscellaneous Features

A variety of other features were developed for Evergreen in 2011, too numerous to cover in depth, including:

- 1. Batch editing of patron records.
- 2. Acquisitions ordering templates.
- 3. Acquisitions purchase order improvements.
- 4. Acquisitions—linking of invoices and partial shipment processing.
- 5. Custom report building.
- 6. Staff-client infrastructure work to allow rendering of new input without a screen refresh.

<u> 2012:</u>

It proved to be a transitional year in Evergreen development. Traditional community development resources were over-extended with the pushes for new features from the previous two years. The Evergreen development community grappled with the sprawling growth of new development and how to rein it all into a viable community upgrade process. The demand for new functional development from KCLS and other grant partners remained unabated.

Certain new features were sponsored by KCLS in early 2012 including a significant reworking of the bibliographic record display in the OPAC to provide a more elegant full Grant #LG-07-09-0123-09 King County Library System measure of bibliographic and copy-level information to patrons (hold status, availability status, etc.)

But increasingly, the means to nimbly implement development in Evergreen became clogged and stressed. The ability to track and manage previous development forward into new software releases became challenging. Access to knowledgeable Evergreen software developers became more difficult to come by.

By mid-2012, KCLS, as the lead software development agency for the grant, concluded that achieving the open-source vision of user driven nimble software development was becoming problematic, leaning toward impossible. The overall software development and implementation process would need a significant overhaul in order to maintain the original vision.

The bottom line was that new technical expertise was needed to infuse new strategies and resources into the entire Evergreen development and implementation process. To that end, KCLS opened up requests for proposals to new development firms outside of the traditional Evergreen and library software development communities.

Through the latter part of 2012, KCLS has been transitioning to new development strategies and support resources. We will address the significance of this strategic shift later in this report in the section about the impact of the grant upon the Evergreen community.

In summary, the functional development done during the grant period provided an essential upgrade to many foundational services of the Evergreen system. As the grant-period draws to a close a natural transition is occurring with Evergreen software development, away from core system upgrades and moving toward the creation of more flexible and nimble development processes to allow libraries with diverse values and community service goals to develop and implement these services in an increasingly dynamic and timely way.

In order to actualize the open-source vision of library empowerment, a key metric to watch will include the diversification of skilled and qualified technical people and resources who know how to effectively develop in Evergreen. It seems clear that for a quantum level leap to occur in adoption of Evergreen by libraries, particularly large libraries, that a much broader base of development and technical expertise will have to be achieved. Additionally, successful business models will have to take root that incentivize software companies to thrive from ongoing software development as opposed to traditional ILS business models that generate revenue from repeated licensing of a common product and code base.

Resource Development

When we began the grant, we noticed an absence of key supporting resources affecting literally all members and potential members of the Evergreen community. There was no single resource available for looking up the capabilities of the Evergreen product – no single feature listing, just release notes that accompanied the major releases as well as the bug-fixing releases. There was no Administrator, Training, or User Guides. New

Grant #LG-07-09-0123-09 King County Library System releases were announced but no testing scripts were included with the releases. There was no context-sensitive help built into the program. New programmers found the Evergreen code a challenge because it was so sparsely documented and there was no comprehensive document that articulated the components and dependencies of the Evergreen modules.

Many important resources are still lacking and people supported by this grant have been involved in developing some key resources that are slowly filling the gap including:

- 1. Context-sensitive help files are now built into each release and are part of the core Evergreen code (initiated by KCLS)
- 2. Official documentation for each release is maintained by a standing committee (Documentation Interest Group) of which grant partners are a part.
- 3. The first Administrators Guide (book) was just released (one of the three authors is a from a grant partner library)
- 4. A searchable database of Evergreen initiatives including information about the entity running the Evergreen instance and contact info for administrators and others involved in supporting that instance (developed solely by grant partners)
- 5. Comprehensive Listing of Evergreen Features (currently maintained by the principal consultant from the grant)
- 6. Backgrounder for New Evergreen Developers (authored by principal consultant)
- Documentation of Perl Modules Used in Evergreen (provided by contractors working on behalf of grant partners)

The rscel.org website included an ILS (Integrated Library System) to OSLS (Open Source Library System) Resources area. The idea was to organize grant partner-contributed resources that are associated with each stage in the ILS to OSLS process. Before the rscel.org site was abandoned in favor of the evergreen-ils.org site, we had collected over 50 documents in the following categories:

- Introduction of Concepts
- Evaluation
- Migration
- Implementation
- Operations
- Development
- Culture Shift

These documents will eventually be incorporated into the new Evergreen website.

In addition, numerous other documents have been shared between partners. These documents can be used as templates and sometimes they can be used as is. Their usefulness is more limited as they are associated with a specific organization and they are sometimes associated with a specific Evergreen release:

- KCLS Training Material
- How-To-Guides for Invoicing, Order, and Receiving (using EDI)
- Evergreen Support RFP
- Backgrounder: How Circ Modifiers Work in Evergreen
- KCLS Go Live Documentation

- Several Development RFPs and RFQs
- Quick Guide: Requirements Gathering Techniques
- Requirements Interview Checklist

Some of the above documents were shared at one or more of the 11 sessions on Open Source that were delivered at various library conferences including:

- 1. 2009 Evergreen Conference "Get Out of the Frying Pan" (Atlanta)
- 2. 2009 Open Source Unconference at ALA (Chicago)
- 3. 2009 CLA Conference Session "Open Source Open Libraries" (Pasadena, CA)
- 4. 2010 Evergreen Conference "Plays Well With Others" (Grand Rapids)
- 5. 2010 PLA session "Open Source Works" (Portland)
- 6. 2011 ALA session "True Grit" (New Orleans)
- 7. 2011 CLA Session "Why So Many Are Choosing Koha or Evergreen and How to Include it in your Next ILS Procurement Process"
- 8. 2011 Evergreen Conference Session "Becoming an OS Organization" (Decatur)
- 9. 2012 ALA session CGB meetings with OS-curious (Philadelphia)
- 10.2012 CLA Session "Open Source Resource-Sharing in California" (San Jose)
- 11.2012 Evergreen Conference "Application Development" (Indianapolis)

Project Audience:

The project audience for this project was broad. It included library staff from directors to circulation staff. Anyone working with an ILS had the potential for being part of the audience we were targeting.

During our work on the website, we defined a set of personas or roles that the website needed to accommodate. It is this same group of people that were the target audience for the grant. The following list provides a descriptive summary of our target audience:

"Potential" users are those considering an implementation of Evergreen for their organization.

"Administrator" users administer or maintain an existing Evergreen implementation.

"Consultant" users provide services to one or more Evergreen-using organizations.

"Skeptic" users are potential users that are explicitly unsure of open source development methodology, support models, open source ILS in general, or Evergreen specifically.

"Migration" users are planning or in the middle of a migration to Evergreen.

"Standalone" users are existing or potential Evergreen users of a single-library implementation of Evergreen.

"Developer" users are developers of Evergreen software.

"Extenders" include third-party developers, integrators, and other "unofficial" developers with an interest in Evergreen development and source code.

"Install" users are seeking information about Evergreen software repositories and related downloads.

"Documenters" help create and maintain the official Evergreen project documentation.

"Translators" participate in translating the Evergreen software and/or documentation.

"Accessibility" users participate in ensuring Evergreen software, documentation, and website are as accessible to as many users as possible.

"Governance" users are members of the Evergreen Governance Committee

"Webmasters" maintain the existing website and underlying infrastructure

"LIS" users are professors, teachers, or students interested in studying Evergreen and other ILS software in a LIS or other academic context.

Project Analysis:

The original goals of the Empowered by Open Source project were:

- 1. Promote OSLS adoption by articulating the benefits to libraries.
- 2. Increase participation in OSLS projects.
- Make open source conversions a viable option for public libraries by providing infrastructure elements related to planning, implementation, training, development, and support.
- 4. Develop a new model of peer-to-peer support for open source libraries.

All four of the stated goals were addressed to some degree. Throughout the four years, the benefits of adopting an Open Source library system were articulated in workshops, webinars, presentations, blog posts, and in informal conversations. There has been a definite increase in participation in the Open Source library system projects (Koha and Evergreen) and the high profile nature of KCLS's migration to Evergreen was a significant factor.

In addition, throughout the grant period, we have focused on developing infrastructure elements that would make Open Source a more viable option. In this regard, we were partially successful. We have found, however, that even if the explicit goals of the grant have not been met as expected, we have made a significant impact. Therefore, our analysis focuses on the impact of our work on partner libraries, the Evergreen open source user community, and the wider national and international library community.

Impact on Grant Partners:

At the beginning of the grant period, each of the partners was seriously pursuing the Evergreen Open Source library system. By the end of those three years, five of the partners had migrated to Evergreen. The following summarizes the key impacts on the grant partners, focusing mostly on those that migrated.

Participation Increases Sense of Satisfaction

We discovered that the degree to which an organization had become active in the Evergreen community was closely correlated to their level of satisfaction with having migrated. The partners that used grant funds to add a staff position dedicated to the Open Source project are among the most enthusiastic Evergreen supporters today.

Their organizations benefited from having one staff person embedded in the larger community because it ensured that they had access to not just their local expertise but also to the greater resources the Evergreen community. In most cases, these enthusiastic Evergreen libraries also ended up getting involved in committees (often more than one), attending conferences, and eventually they ended up working on development projects.

Both Bibliomation and MassLNC are examples of this approach. Each has a staff person designated as the community liaison. That liaison is very visible and active in the community including on the Oversight Board and on one or more committees. Interestingly, these same two representatives (Amy Terlaga of Bibliomation and Kathy Lussier of MassVC) also recently won the bid for hosting the 2014 Evergreen Annual Conference.

In the case of KCLS, because the lead consultant for this grant acted as the community representative for KCLS, they did not benefit from the sense of being part of the larger community. Their efforts were focused on migrating, and then development but no KCLS employees participated actively in the wider community. The level of dissatisfaction, at KCLS, with the move to Evergreen and their lack of direct involvement with the community inversely reinforces the premise that involvement seems to improve satisfaction.

Increased Sense of Responsibility and Staff Engagement

There is no doubt that libraries or service providers hosting their own instance of Evergreen feel a greater sense of responsibility for all matters related to the ILS than libraries or service providers delivering a vended solution.

Bibliomation, EINetwork, PALS, and MassLNC all provide ILS services for libraries and/or consortia. They each reported that they had to spend more time working with Evergreen to decide how to implement it for their libraries because there were so many different ways to do things. They also needed to spend more time figuring out how to accomplish their objectives because of the lack of documentation. In addition, much more time was spent developing training material for their users.

As a result of these additional responsibilities, end users were required to be more involved so they could make their needs known. Bibliomation' brought their staff together in focused planning groups to develop appropriate training material and hosted

Grant #LG-07-09-0123-09 King County Library System many meetings with their libraries to ensure they knew what their users needed. EIN invited front line staff into their conversations about workflow and made sure that libraries understood that they needed to be included in decisions about how Evergreen would be set up.

These service providers recognized that they now owned whatever problems they encountered. There was no vendor to blame. Waiting for resolution was not an option. As one MassLNC user stated, "With freedom comes responsibility."

Both KCLS and Santa Cruz (larger single libraries hosting their own Evergreen instance) also found that their IT and library staff were engaged in a new way. Circulation staff wrote "use cases" and "test scenarios" in support of new development projects. Line staff were invited to establish development priorities. Like Bibliomation, EI Network, and MassLNC, the IT departments running Evergreen relied more heavily on their own ability to solve problems and they sought out the help of their users to also take on more responsibility to find solutions.

The Peninsula Library System (PLS) was not able to make significant progress in their move toward Evergreen and the need to take a deeper level of responsibility is the most obvious reason. Like Orange County (which eventually left the project and migrated to Innovative Interfaces Sierra product), they sought the help of an outside consultant to help them do a "gap analysis." The purpose of the gap analysis was to determine whether the basic functionality available in Evergreen was adequate for their purposes. Having done so, the report indicated that all major functionality existed. Yet, PLS was not able to take the next step of allocating dedicated staff to Evergreen. Even though the grant would have covered the expenses of an additional employee, PLS never supplemented their staff with a person conversant in the technologies pertinent to Evergreen (PostgreSQL, Unix/Linux operating systems, PERL, PHP, Java) and as a result their members lacked the confidence to move forward.

Better Alignment with Values

Every grant partner expressed the sentiment that being part of the Evergreen community and using an Open Source ILS product brought them into better alignment with their values. As public libraries, everyone involved in the grant recognized that the traditional ILS marketplace had not been good for libraries. Vendors required libraries to keep contract terms secret, all development projects were sold as "customizations" so that each library had to pay for their own (even if they were duplicated by other customers), and their data was not accessible and usable for other purposes.

The ability to share the cost of development projects in an open source environment is very much in line with library values. Resource-sharing has been a library value for decades. Working together to develop software enhancements that address everyone's needs and pooling resources to make it happen is a natural fit for libraries. The grant partners led many shared development projects over the course of the grant starting with the development of a children's catalog spearheaded by Bibliomation. Many other shared projects followed, and in most cases, at least one development partner threw their resources into the mix to help get the project funded.

Empowered Staff

Related to the increased sense of responsibility is the feeling of empowerment that is felt by library systems staff. This also trickles down to the users. Rather than feeling handcuffed by the development priorities of the vendor or the bottom line needs of equity partners, the IT staffs and users of Evergreen feel more in control of their destiny. One Bibliomation staff person indicated they felt they were "in the driver's seat" and their attitude has transitioned from "let me ask the vendor" to "let me see what I can do."

KCLS reports that they used to have to change their behavior to conform to the system but now they can change the system to conform to their organization. MassLNC reports a general feeling of hopefulness, that there is a possibility of many of their wishes actually coming true. EIN reports they have a "we can do this" attitude. PALS reports that people are more willing to talk now about possibilities.

This sense of empowerment creates an opportunity to start thinking differently about library services and what libraries can and cannot do to support new services, new service models, and new ways of interacting with their communities.

Impact on the Evergreen Open Source User Community:

The IMLS grant had a big impact on the Evergreen community. One of the first activities of the grant partners was to attend the second annual Evergreen conference. At this conference, several of the grant partners, and the grant consultant, took on leadership roles in the community. Several of these same people were brought of a governance task force that eventually established the Oversight Board and bylaws to govern that Board.

Of the 11 members of Evergreen's first Oversight Board, three were related to the IMLS grant project. After the first elections the following year, four Board members were related to the grant. During this time, not only was the Oversight Board and bylaws established, but Evergreen became a member of the Software Freedom Conversancy thereby safeguarding the project, the source code, and other community assets, for all users.

Grant partners were present on virtually every Evergreen committee and task force from the Documentation Interest Group, to the Reports Task Force, to the Communications Committee and Web Team. The work of these individuals, propelled by the IMLS grant, gave the Evergreen Project a big burst of energy that moved it to another level. It is no longer a Georgia PINES project. It has fledged into an international project with broad participation and shared responsibility for community assets.

The impact of the project on the Evergreen development community is less clear. One negative consequence of the grant was the resulting monopolization of Evergreen developer resources on KCLS priorities. Because the developer community was fairly small to begin with, when KCLS committed themselves to Evergreen, they also committed their substantial resources to the features that were critical for their environment. From the KCLS perspective, the expectation was that whatever contributions they made to Evergreen would be a net gain for all Evergreen users.

However, in retrospect, it isn't clear if the focus on KCLS priorities really did serve the community as well as a more balanced approach may have. The heavy focus on large library issues has put other development priorities on hold, yet Evergreen is still not the product it needs to be to adequately address the needs of a large library system like KCLS. As KCLS transitions to their new strategy which involves working with outside developers on a separate instance of Evergreen, it will be interesting to see what direction Evergreen development takes.

Another impact of the IMLS grant on the Evergreen Community was to make it clear that the developer community and development in general has its own infrastructure issues to resolve. Over the course of the three years, grant partners attempted to clarify protocols and procedures for getting new developers involved in the Evergreen project and to find a way for libraries (not just developers) to determine the development roadmap. However, the development infrastructure is still immature. Just two years ago, the code repository was transitioned from Subversion to Git for both Evergreen and OpenSRF. For bugs and enhancement requests, community members are encouraged to use Launchpad but this hasn't really taken hold (at least for enhancement requests).

The decision-making process used by developers is undocumented and somewhat mysterious. It is very rare for a committer to be nominated to the "core committer" role and how one gets to that point is unspecified. The developer community is an insular group that is fairly difficult to penetrate especially if the developer it not employed by a library directly.

The long-term success of Evergreen will depend on the ability of the developers to establish a more open, welcome and distributed environment for developing the product. In addition, as a library project, it will be important to find a way to work with the community to create a development roadmap that accommodates a broader cross-section of the library community using the product.

Impact on National and International Library Community:

The State of the ILS

When we began the project, an Open Source ILS was the only out-of-the-box alternative to the traditional, vended ILS. Today there are not only two viable Open Source ILS products available but there are also a number of library service platforms that are competing with the traditional ILS model. The fall, 2012 issue of Information Standards Quarterly² provides an overview of the numerous options now available to libraries. These platforms are often designed around the management of both print and digital collections (not just print collections which has been the focus of the traditional ILS). The platforms also are more likely to leverage "cloud computing" and are more open (provide APIs, integrate with ERM and CRM applications, provide support for Web Services, etc.).

http://www.niso.org/apps/group_public/download.php/9922/FE_Grant_Future_Library_Systems_%20isqv24no4.pdf

² See

It is no coincidence that the development of several alternatives to the traditional ILS has sprung up just as the viability of Evergreen and Koha have been firmly established. KCLS' migration to Evergreen firmly established Evergreen as a competitor to other full-featured ILS products. Even with the challenges that KCLS has faced related primarily to performance, the fact that KCLS has continued to move forward with Evergreen has legitimized the product in the eyes of many. There are a disproportionate number of former Millennium libraries using Evergreen so it comes as no surprise that one of the earliest ILS alternatives came from Innovative when they offered their "open" Sierra product. Their marketing highlights the use of Open Source technologies (even though the product itself is most definitely not Open Source) and the new APIs that give users easier access to their library data.

OCLC WorldShare was actually the first true alternative to the ILS. Their WorldShare product is a true cloud computing solution that leverages the data in WorldCat, the WorldCat knowledge base, the World Share vendor information center, the WorldCat Registry, and other centralized data repositories. There is nothing like it available from traditional vendors. In addition, OCLC has built a common framework for services and delivered a number of open APIs for integrating other applications and supporting the development of applications by libraries themselves. As in the Open Source communities, these applications can be shared with other libraries using an App Gallery. Their approach builds on the same appeal we identified in this project: the alignment with the library value of resource-sharing.

In the three years we've been working on this project, Ex Libris has developed a new product called Alma and Serials Solutions is about to deliver Intota, and the long-awaited open source library system product designed for academic libraries, OLE, will soon be available. Each of these products is designed around today's library workflows and is likely to offer significant benefits for libraries.

Some argue that the library market is not big enough to support three Open Source library system products (OLE, Evergreen, and Koha). This may be true. It is too early to tell whether all three products will continue to gain in popularity, and build up the active, dynamic community that is necessary to support an open source product. However, what is clear is that the migration to these out-of-the box systems has created more out-of-the box thinking on the part of traditional ILS vendors and OCLC and the result is more, and better, choices for libraries.

The Burlington Story: Evergreen and Small Libraries

In the state of Washington, every year the directors of all the public libraries in the state gather for a retreat at a small conference center in the city of Federal Way. In April 2011, when Burlington went live, KCLS was invited to deliver a presentation to this director's group on the prospects of the Evergreen system and the role of the grant.

Though KCLS is a very large and complex multi-library system, at that presentation, the directors of three smaller Washington Libraries—Burlington city, La Conner city, and Upper Skagit library district—were inspired by the story of simpler, better functioning, less expensive information systems.

Though these goals did not necessarily dovetail with KCLS' greater grant objectives (KCLS was primarily motivated by greater ability to develop new functionality and services as opposed to lower cost) the reaction of these three libraries was not unusual and we experienced this reaction frequently over the three-year course of the grant.

The grant period coincided with stressful economic times, which were felt nationally by many public libraries. Library cost-cutting measures were widely prevalent. So library directors' ears pricked up when they first heard that we were talking about a "free" ILS.

Eli Neiburger of the Ann Arbor public library, one of the grant partners, explained that Evergreen software was free as in kittens, not free as in beer³ suggesting that though the startup cost was free, the costs of ongoing care and feeding were where a primary consideration in the long term cost/benefit equation of open source.

So, we were all surprised at both the functional and economic benefits achieved by the Burlington group when they went live with Evergreen just a few short months after hearing the open source gospel for the first time at the director's retreat.

The three small libraries; with a total collection of approximately eighty thousand titles; did form a small consortium to operate collectively on one shared Evergreen system. They chose a conservative, well-established release version of Evergreen that was known to be reliable. They had goals to lower their annual ILS system maintenance costs due to budget pressures. They entered quickly into an implementation and support agreement with a seasoned vendor. And within six months of the director's retreat, the Burlington group was running Evergreen as their ILS of choice.

In this process, Burlington disproved several colloquial myths and untested assumptions that had emerged regarding open source in general and Evergreen specifically:

Myth: It would be generally easier for a large system like KCLS to implement Evergreen due to a large ITS staff, than it would be for a small library like Burlington that did not have such a staff.

Reality: Burlington implemented Evergreen much more quickly and with much greater initial patron and staff satisfaction than did KCLS. Arguably, Evergreen is made to order for smaller libraries that typically do not have the significant performance, scaling, and complex functional requirements of large multi-library systems

Myth: Open source may be free, but the long term operating costs will actually make the system more expensive than a traditional ILS (the free kittens' theory)

Reality: Burlington was able to achieve significant reductions in annual system maintenance costs by contracting with a qualified open source vendor for ongoing system support.

³ This explanation of the use of "free" as in "free" and "open source" was first provided by Richard Stallman, founder of GNU software. See http://infomotions.com/musings/biblioacid/ but in his example, he cited free as in free speech versus free as in free beer.

Myth: The only way to successfully implement open source effectively is to hire software programmers as library staff.

Reality: While there are good examples of the virtues of hiring software developers on staff, Burlington simply chose a version of Evergreen that largely already met their functional needs. Burlington did not enter the project with goals to change or evolve the system. They simply wanted a stable, solid, functional, and less expensive system. This system exists with Evergreen in its current state. It was a comparatively simple exercise to find a reliable vendor for simple system support. So in the Burlington case, the "free" price tag of the software itself, really did contribute to lower annualized ILS costs without the need to hire programmers on staff.

The original goals of the grant included the assessment of the viability of open source in a wide variety of public libraries. The Burlington story is an excellent example of the strengths of the open source strategy when implemented in a small library system with well aligned expectations.

By virtue of its high profile move to Evergreen, KCLS paved the way for many libraries to move to an open source ILS. Even though many of the resources that are typically made available by the vendor are not available to the broader Evergreen community, many of these resources are, in fact, available from Evergreen vendors. In the case of the Burlington libraries, they were able to join the Evergreen open source community while enjoying the support of a fairly traditional vendor-supported ILS relationship.

What's Next:

It is too early to tell whether or not Evergreen specifically or Open Source ILS systems generally have gained permanent purchase on the information system landscape of the future.

Evergreen adoption generally (nationally and internationally) continues to grow, whether for purposes of empowerment or economy. There were 99 libraries using Evergreen when this grant project was initiated. Today there are over 700.

Among the grant partner libraries, Bibliomation, PALS, KCLS, Santa Cruz, and MassLNC continue to foresee an Evergreen future. For EIN, Ann Arbor, and Peninsula, Evergreen remains a viable option assuming continued forward progress and harmony between the software and the goals and values of the institutions.

The grant partners have agreed to continue informal association via maintenance of the bi-weekly partner conference calls. These calls have contributed much in esprit-descorps, insight, and connection to breaking news within surrounding the Evergreen system and community. It is via these regular conference calls that we keep tabs on each other's latest projects and system initiatives, frustrations, and hopes.

Grant #LG-07-09-0123-09 King County Library System

We can safely assume that the Evergreen and Open Source ILS movements will not remain stagnant. They will certainly wax or wane. A key dynamic to observe is the battle for the soul of the Evergreen community.

Like other Open Source communities, the Evergreen community has had a tendency to be dominated by a fairly small number of approved developers or "code committers". At stake is nothing less than the interests of the system users—the library staffs and patrons.

In the Burlington story, we have observed some of the inherent advantageous factors that promote the likely growth of the Evergreen community among smaller libraries. These advantages also dovetail with the interests of the non-profit organizations like Bibliomation and PALS, who now have cost-free software that can function as the basis of their automation service offerings to prospective library customers within their respective service umbrellas.

As the lone grant partner representing large urban or suburban centrally operated library systems, KCLS notes that at the close of the grant, there have been no additional significant adoptions of Evergreen by other large public library systems like Queens, NYPL, Los Angeles, Multnomah County, Hennepin County, Santa Clara County, Charlotte Mecklenburg, or other benchmark systems who would certainly be making hay with Evergreen if it were perceived as a net advantage to these systems.

KCLS concludes that, even after three years of active development, the Evergreen Software is not sufficiently functionally mature or sufficiently stable, to confidently deliver the complex array of services performed by these large central systems at volume. But we are much closer to that vision than we were three years ago; perhaps a year or two away from bringing the Open Source advantages to bear within a complete and well-developed package of software.

In order to reach the desired level of features and performance, KCLS now envisions a potential schism within the Evergreen community that will have to be managed with care, but may be unavoidable. The KCLS experience is that the Evergreen community as it is currently constituted is represented by interests that aren't aligned with those of KCLS (and, we infer, those interests of comparable large library systems).

In a nutshell, The Evergreen system performs just fine when you want to select, order, catalog, display, and circulate five copies of "Memoirs of a Geisha". But Evergreen remains functionally problematic when the same process is applied to five hundred copies of the same title as it is distributed and shared among fifty library system branches.

After three years of working within a strategic framework of community adoption, KCLS is taking a different tack for 2013 and beyond. KCLS will be developing its own version of Evergreen, taking useful pieces as prudent, from the main trunk of community code, but weaving those elements into a KCLS version of the Evergreen software. KCLS will then freely make the end product available to any interested library, consistent with the

Grant #LG-07-09-0123-09 King County Library System sharing values of the Open Source ideal. But they will not be seeking formal community approval of new software development.

A second major change of strategy looking ahead is a significant increase in the number of cooks with their hands in the soup. Frustrated by the sheer small number of authorized developers of Evergreen, and the difficulty of accessing these developers, KCLS is spreading the development net wider, and involving professional software firms in Evergreen development who have had no previous Evergreen or even library software experience.

Whether this strategic shift of development diversity achieves the desired effect of enhancing the breadth of Evergreen development for the benefit of the users, or whether it just adds chaos and makes a mess, also remains to be seen.

Regardless, we know that the Evergreen vision is to create a functionally rich, service friendly, and economically compelling information system solution for public libraries everywhere. After a three-year push with the assistance of this IMLS grant, we are not yet to that end, but we are much closer. We believe that this grant has been a significant catalyst in keeping the Open Source ILS vision alive and vibrant.

As of today, we indeed have an Open Source solution that can effectively be adopted by a large cross-section of libraries. With a bit more work and a bit of good fortune, we are very near to a system and a process that will significantly empower libraries to be able to provide specifically relevant information services to their communities; a system which will allow libraries to not settle for the one-size-fits-all closed solutions of the past.

Final Performance Report: Part 2, Quantitative Information

| A. SITE SPECIFIC PROJECT ACTIVITY:Website Development | |
|--|-----|
| 1 Total # of collection items conserved, relocated to protective storage, rehouse or for which other preservation-appropriate physical action was taken. | ∙d, |
| 2 Total # of collection items digitized, scanned, reformatted, or for which other electronic or digital preservation action was taken. | |
| 3 Total # of collection items with new or enhanced accessibility (include items to were cataloged or for which finding aids or other records were created or computerized) [includes items made accessible to users other than grantee staff for the first time, items with new or enhanced access for staff only]. | nat |
| 4 Total # of lectures, symposia, demonstrations, exhibits, readings, performance concerts, broadcasts, Webcasts, workshops, multi-media packages, or other learning opportunities provided for the public (do not include PSAs or other promotional activities) [includes out-of-school or after-school programs, exhibits]. | es, |

As a distributed community, it was important to establish a website to support our work. Initially, we created a Drupal-based website to support project activities. See the Resource & Sharing Cooperative of Evergreen Libraries (rscel.org). Initially, the plan was to use Drupal as the platform for sharing resources developed by the grant partners. But, we found that partners were very reluctant to share their resources either because they felt their work was too specific to their environment or because they

identify and quantify them here. Attach another sheet if necessary.

couldn't find the time to do so.

However, we were able to use the site as a staging platform for addressing problems that were identified. Three problems that we attempted to tackle were to:

- Help community members find information about enhancement s that were being pursued (but which had not yet been funded) so that numerous partners could be identified for sharing development costs. We called this the Enhancement Tracker.
- 2) Help community members find other people doing what they do (e.g. other Evergreen Administrators), and a way to identify similar institutions running an Evergreen system (e.g. another small rural library running Evergreen). We call this the Evergreen Initiatives Database, and
- 3) Help community members find out more about what features were supported already in Evergreen (so they could determine if it was even a viable option, to determine whether it was a better Open Source ILS choice than Koha, and to see if they should pursue a desired but absent feature as a new development project). We call this the Features Chart.

During the first year of the grant, it became apparent that our efforts developing the rscel.org site were seen as divisive rather than inclusive. Key community members felt that we were taking traffic away from the main Evergreen website (evergreen-ils.org) rather than helping to support the community and the community asset that is the website. As a result, we halted our work on rscel.org and switched our focus to evergreen-ils.org and to establishing an instance of that site based on Drupal for the purpose of achieving buy-in, community-wide, for the idea of transitioning the main site over to a Drupal platform.

A formal website development process was undertaking including conducting an inventory of the existing content, surveying the community, defining user personas/roles that were pertinent to the community and which needed support on the website, and establishing seeking feedback from the community about development priorities. Finally, we defined the functionality and content of the website that would support each user role, and we developed a website plan. This process took several months. Eventually, we received support from the Evergreen Oversight Board to launch a prototype of the new website based on our proposed plan. This website currently exists at drupal.evergreen-ils.org and it is still under development. The good news is that the Board has thrown their support behind the site so we are now in the process of identifying the best approach for moving from prototype to live website. Ideally, the site will be live in time for the upcoming Evergreen International Conference to be held in Vancouver in April, 2013.

As to the tools we developed on rscel.org, the Enhancement Tracker continues to be a work in progress. We have explored using IdeaTorrent as well as Drupal as a means to support this information need but a plan has not yet been formalized. The Features Chart currently lives at features.galecia.com and because it tracks the features of both Evergreen and Koha, it may not ever live on evergreen-ils.org but the data that is stored there may be harvested for display on evergreen-ils.org. This project is also still in progress. The Evergreen Initiatives Database will like be re-implemented much as it exists today on rscel.org on the new evergreen-ils.org website.

B. PORTABLE PRODUCTS (relating to the activity named in section A.)

| 11 | Total # of research reports, papers, books, reprints, or other publications |
|-------|--|
| genei | ed. |
| 12 | 3Total # of Web sites developed or improved [include URLs/addresses: http://drupal.evergreen-ils.org http://features.galecia.com/ http://rscel.org |
| | Total # of learning resources produced [includes oral histories, curriculum resources, curriculums, Web |
| based | arning tools, or other (specify): |
| 14 | Total # of key management documents created |

| [includes emergency plans, conservation surveys, strategic plans, other (specify):]. |
|--|
| 15. If your grant created one or more quantifiable products not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |
| C. PARTICIPANTS/VISITORS/USERS/AUDIENCE (relating to the activity named in section A.) |
| 16Total # of community organization partners [includes informal partners, formal partners]. |
| 17Total # of schools (pre-K through grade 12) that used services provided by your grant (include only schools that actively participated, not those to which material was simply distributed or made available) [includes students participating in field trips]. |
| 18Total # of teachers supported, trained, or otherwise provided with resources to strengthen classroom teaching or learning. |
| 19Total # of pre-K through grade-12 students served [includes youth 9-19 who used, participated, visited, or otherwise interacted with activities; experiences, resources, or products offered by your grant]. |
| 20Total # of viewers and listeners for radio, television, and cable broadcasts (for series, include total actual audience for all broadcasts; do not include audience for PSAs or other promotional activities or Webcasts; do not report potential audience). |
| 21Total # of users of Web-based resources provided by your grant (include all individuals the project served). Choose the measure that best represents your use rate (choose only one): visits (hits), unique visitors, registered users, other measure (specify): |
| Total # of individuals benefiting from your grant (include all those from questions 18-21 plus others the project served, including staff or others in your field). Only include those who actually participated or used your project services in some way. |
| 23. This number includes:professionals, non-professionals or pre- professionals,docents or interpreters,volunteers, staff that received services provided by your grant. |

| Grant | #1 G | -07- | 09- | 012 | 73-6 | 19 |
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24. If your grant served one or more quantifiable audiences not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary.

| A. SITE SPECIFIC PROJECT ACTIVITY:Resource Development |
|--|
| 1 Total # of collection items conserved, relocated to protective storage, rehoused, or for which other preservation-appropriate physical action was taken. |
| 2 Total # of collection items digitized, scanned, reformatted, or for which other electronic or digital preservation action was taken. |
| 3 Total # of collection items with new or enhanced accessibility (include items that were cataloged or for which finding aids or other records were created or computerized) [includes items made accessible to users other than grantee staff for the first time, items with new or enhanced access for staff only]. |
| 4 Total # of lectures, symposia, demonstrations, exhibits, readings, performances, concerts, broadcasts, Webcasts, workshops, multi-media packages, or other learning opportunities provided for the public (do not include PSAs or other promotional activities) [includes out-of-school or after-school programs, exhibits]. |
| 565Total # of tools created, improved, or produced for searching, information management, or information analysis by users other than or in addition to grantee staff. |
| 617Total # of conferences, programs, workshops, training sessions, institutes, classes, courses, or other structured educational events provided. |
| 7 Total # of internships, apprenticeships, mentoring opportunities, or other extended educational opportunities provided. |
| 8Total # of degrees/certificates earned as a result of the grant [includes Master's, Ph.D. degrees, other (specify):]. |
| 9Total # technology upgrades or improvements (specify): |
| 10. If your grant engaged in other activities not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |
| Multiple demo systems (and tech support) were provided out of grant funds and these demo systems were used by at least 20 institutions for evaluating, testing, and training. As part of establishing our demo systems, we established a standard data set and refresh schedule for all |

Grant #LG-07-09-0123-09 King County Library System demo systems (not just the ones supported by the grant) so potential users could use different demo systems (current release as well as beta releases) to compare features. We also provided a demo system in an Amazon Cloud image format which made it easy for evaluators to download and install Evergreen.

| B. PORTABLE PRODUCTS (relating to the activity named in section A.) |
|--|
| 11Total # of research reports, papers, books, reprints, or other publications generated. |
| 123Total # of Web sites developed or improved [include URLs/addresses: |
| |
| 13Total # of learning resources produced [includes oral histories, curriculum resources, curriculums, Webbased learning tools, or other (specify):]. |
| 14Total # of key management documents created [includes emergency plans, conservation surveys, strategic plans, other (specify):]. |
| 15. If your grant created one or more quantifiable products not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |
| C. PARTICIPANTS/VISITORS/USERS/AUDIENCE (relating to the activity named in section A.) |
| 16Total # of community organization partners [includes informal partners, formal partners]. |
| 17Total # of schools (pre-K through grade 12) that used services provided by your grant (include only schools that actively participated, not those to which material was simply distributed or made available) [includes students participating in field trips]. |
| 18Total # of teachers supported, trained, or otherwise provided with resources to strengthen classroom teaching or learning. |
| 19Total # of pre-K through grade-12 students served [includes youth 9-19 who used, participated, visited, or otherwise interacted with activities, experiences, resources, or products offered by your grant]. |

| 20Total # of viewers and listeners for radio, television, and cable broadcasts (for series, include total actual audience for all broadcasts; do not include audience for PSAs or other promotional activities or Webcasts; do not report potential audience). |
|--|
| 21Total # of users of Web-based resources provided by your grant (include all individuals the project served). Choose the measure that best represents your use rate (choose only one): visits (hits), unique visitors, registered users, other measure (specify): |
| 22Total # of individuals benefiting from your grant (include all those from questions 18-21 plus others the project served, including staff or others in your field). Only include those who actually participated or used your project services in some way. |
| 23. This number includes:professionals, non-professionals or pre-professionals, docents or interpreters,volunteers,staff that received services provided by your grant. |
| 24. If your grant served one or more quantifiable audiences not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |
| A. SITE SPECIFIC PROJECT ACTIVITY:Software Development |
| 1 Total # of collection items conserved, relocated to protective storage, rehoused, or for which other preservation-appropriate physical action was taken. |
| 2 Total # of collection items digitized, scanned, reformatted, or for which other electronic or digital preservation action was taken. |
| 3 Total # of collection items with new or enhanced accessibility (include items that were cataloged or for which finding aids or other records were created or computerized) [includes items made accessible to users other than grantee staff for the first time, items with new or enhanced access for staff only]. |
| 4 Total # of lectures, symposia, demonstrations, exhibits, readings, performances, concerts, broadcasts, Webcasts, workshops, multi-media packages, or other learning opportunities provided for the public (do not include PSAs or other promotional activities) [includes out-of-school or after-school programs, exhibits]. |
| 5 Total # of tools created, improved, or produced for searching, information management, or information analysis by users other than or in addition to grantee staff. |
| 6 Total # of conferences, programs, workshops, training sessions, institutes, |

| Grant #LG-07-09-0123-09 King County Library System |
|--|
| 7 Total # of internships, apprenticeships, mentoring opportunities, or other extended educational opportunities provided. |
| 8Total # of degrees/certificates earned as a result of the grant [includes Master's, Ph.D. degrees, other (specify):]. |
| 9Total # technology upgrades or improvements (specify): |
| 10. If your grant engaged in other activities not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |
| Complete overhaul of three major Evergreen subsystems: acquisitions, staff circulation client, OPAC (including transition to Template Toolkit) Development of load testing simulations. Development of support for Asterisk telephone notification system. Improvement of self check-out interface, reports, serials, and bibliographic display (for patrons) |
| B. PORTABLE PRODUCTS (relating to the activity named in section A.) 11Total # of research reports, papers, books, reprints, or other publications generated. |
| 12Total # of Web sites developed or improved [include URLs/addresses: |
| |
| 13Total # of learning resources produced [includes oral histories, curriculum resources, curriculums, Webbased learning tools, or other (specify):]. |
| 14Total # of key management documents created [includes emergency plans, conservation surveys, strategic plans, other (specify):]. |
| 15. If your grant created one or more quantifiable products not covered by the categories above, please briefly identify and quantify them here. Attach another sheet if necessary. |

C. PARTICIPANTS/VISITORS/USERS/AUDIENCE (relating to the activity named in section A.)

FEDERAL FINANCIAL REPORT

(Follow form instructions) 2. Federal Grant or Other Identifying Number Assigned by Federal Agency Page of 1. Federal Agency and Organizational Element (To report multiple grants, use FFR Attachment) to Which Report is Submitted Institute of Museum and Library Science LG-07-09-0123-09 30 30 pages 3. Recipient Organization (Name and complete address including Zip code) King County Library System, 960 Newport Way NW, Issaquah, WA 98027 5. Recipient Account Number or Identifying Number Report Type 7. Basis of Accounting 4a. DUNS Number 4b FIN (To report multiple grants, use FFR Attachment) 808374248 91-1931457 C Quarterly LG-07-09-0123-09 Annual C Final 9. Reporting Period End Date 8. Project/Grant Period (Month, Day, Year) To: (Month, Day, Year) From: (Month, Day, Year) October 31, 2012 November 1, 2009 October 31, 2012 Cumulative 10. Transactions (Use lines a-c for single or multiple grant reporting) Federal Cash (To report multiple grants, also use FFR Attachment): 998.556 a. Cash Receipts 998,556 b. Cash Disbursements n c. Cash on Hand (line a minus b) (Use lines d-o for single grant reporting) Federal Expenditures and Unobligated Balance: 998,556 d. Total Federal funds authorized 998,556 e. Federal share of expenditures f. Federal share of unliquidated obligations g. Total Federal share (sum of lines e and f) 998.556 h. Unobligated balance of Federal funds (line d minus g) 0 Recipient Share: 1.014.400 i. Total recipient share required 1,747,235 Recipient share of expenditures k. Remaining recipient share to be provided (line i minus j) l٥ Program Income: n I. Total Federal program income earned 0 m. Program income expended in accordance with the deduction alternative n. Program income expended in accordance with the addition alternative n 0 o. Unexpended program income (line ! minus line m or line n) e. Amount Charged f. Federal Share c. Period From Period To a. Type b. Rate 11. Indirect Expense g. Totals: 12. Remarks: Attach any explanations deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation: 13. Certification: By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and intent set forth in the award documents. I am aware that any false, fictitious, or fraudulent information may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001) c. Telephone (Area code, number and extension) a. Typed or Printed Name and Title of Authorized Certifying Official 425-369-3245 d. Email address 6 lenicki Iglenick@kcls.org e. Date Report Submitted (Month, Day, Year) b. Signature of Authorized Certifying Officia 01/28/13 14. Agency use only:

> Standard Form 425 - Revised 10/11/201 OMB Approval Number: 0348-0061 Expiration Date: 2/28/2015

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