

## **Establishing a Cloud-Based Consortial Platform for Library Usage Statistics (CC-PLUS): A Pilot Project, Submitted by PALCI (Pennsylvania Academic Library Consortium, Inc.)**

PALCI and partnering North American and international library consortia ([VIVA](#), [Jisc](#), [Couperin](#), [CRKN](#), [USMAI](#), [CDL](#), and [SCELC](#)), request \$247,500 for a two-year National Digital Platform Project Grant. This project will pilot and enhance the open source [proof-of-concept CC-PLUS software](#) developed with IMLS funds, and will create the business models, infrastructure, and community necessary to establish a production-ready usage statistics tool to support consortia with data-driven decisions in effective stewardship of library content.

**Statement of National Need** – Consortia are increasingly responsible for large-scale joint licensing and deployment of electronic resources, but readily acknowledge the difficulties they face, namely cost, technical expertise, and time, in evaluating this important work. Electronic resources usage data are vital to understanding the value of these library investments, but without tools to manage and analyze this data, many are simply unable to make the data-driven decisions necessary to ensure effective stewardship. The international library consortium community overwhelmingly indicated a critical need for a usage statistics service to support consortium content decisions in a 2015 survey, but no scalable, widely-affordable solutions existed to meet those needs. Even very recent commercial solutions offering some consortial features (e.g., RedLink’s Consortia Dashboard) are proving ill-suited to most consortia, and present major disadvantages, including potential risk of valuable competitive intelligence information critical to successful library negotiations. In addition, compliance with [COUNTER’s latest standard \(R5\)](#) will be required beginning January 2019. In this new standard, publishers and aggregators are no longer required to support a standard Consortium Report with consolidated, de-duplicated data, further demonstrating the need for a consortium-focused usage statistics infrastructure. In light of these challenges, PALCI and partnering organizations developed the CC-PLUS prototype with a 2017 National Digital Platform Planning Grant (LG-72-17-0053-17), adapting [JUSP](#) software to create a multi-tenant version with a consortium administrative layer and interface. With the prototype nearing completion, partnering organizations must now pilot and enhance the software, create a business model, and develop the technical infrastructure and user community to sustain production-level cloud-based services.

**Project Plan & Outcomes** - The [CC-PLUS open source prototype](#) is capable of storing and administering library and consortium credentials, automated querying for COUNTER R4 JR1 and JR5 usage reports using SUSHI protocol, storing/displaying usage data, and doing basic title matching and other quality control on ingested data. This pilot project will further develop, enhance, and refine the multi-tenant CC-PLUS software package in a production environment through the goals and objectives listed below. In consultation with the [CC-PLUS Advisory Board](#) and piloting institutions, this project will:

### **Phase 1 (October 2018 – July 2019): Transition from Proof-of-Concept to Production-Ready Develop & Enhance Core Functionality for Widespread Adoption by Libraries & Consortia**

- Extend harvest, ingest, storage, and display functionality beyond JR1 and JR5 to include additional COUNTER R4 and R5 Standard Reports, with a focus on Journal Reports, Book Reports and Database Reports, including development of automated processing queues for large scale data processing at the publisher, library, and consortium level
- Expand publisher and aggregator connections to nearly all COUNTER-compliant providers for automated and secure harvest, ingest, and storage of usage data
- Enhance both Administrative and Reporting Interfaces with user interface design and usability testing, including a global administrative function for improved multi-tenant administration and deployment

- Study and consider feasibility of enhancing system report validation & error reporting, which may include automatic checking for and alerting users to usage data re-stated by publishers and aggregators
- Explore the use of APIs and other means to incorporate contextual data sources (e.g., KBART title lists to assist libraries with entitlements), tools (e.g., ERMs), and data visualization software (e.g., Tableau)

## **Phase 2 (July 2019 – March 2020): Deploy, Test & Refine in Production Environments**

### **Pilot Both Hosted & Locally-Installed Use Cases of the Open Source Software**

- Deploy the software package in production environments for six months of testing and evaluation by several identified consortia and libraries, including both locally-hosted/managed and web-hosted use cases
- Identify service feasibility, documentation, infrastructure requirements, and costs associated with both hosted and locally-managed installations to develop business models and infrastructure recommendations

### **Refine Features & Functionality Using Community Feedback**

- Use data gathered from the pilot and stakeholder community to further refine features and functionality necessary for widespread adoption by consortia

## **Phase 3 (January – September 2020): Plan for & Recommend Future Services for Sustainability**

### **Develop Hosted Service Models & Open Source Software Community for a Sustainable Cloud-Based Service & Infrastructure Solution**

- Create a business model for the development of a hosted service, leveraging deep collaboration for a shared consortium infrastructure supporting cloud-based services and local installs of the CC-PLUS software to transition this project from grant funds to a sustainable community-funded environment

**Project Team** - Jill Morris, PALCI Associate Director, will serve as Project Director. This project will build on the work of the previous planning grant with the same experienced project staff and advisory board, consisting of 8 highly collaborative consortia with decades of experience. Partnering consortia will continue to contract with our selected application developer, Scott Ross, who has 15+ years experience developing and maintaining library and consortium usage statistics systems. Additionally, project partners will leverage the experience and resources of their organizations, and will identify additional project staff to manage and deploy the pilot, refine user interfaces, and develop a shared infrastructure supporting this community.

**National Impact** - This strategic project will have far-reaching impact on diverse library consortia representing thousands of libraries in the U.S. and around the world by creating an open source national digital platform for usage statistics to support exemplary stewardship of library collections. Library usage statistics are often the only practical way to assess effective use of collections funds. This CC-PLUS Project will fill the current infrastructure gap, and allow consortia and libraries to make meaningful use of this data. Previous calls for project support and partnership yielded enthusiastic support and commitment from partnering organizations, including 8 project partners, support from the [ICOLC](#) (International Coalition of Library Consortia) Coordinating Committee, and 15 individual library consortia in the U.S., Canada and around the world. With the changes coming in the latest COUNTER R5 Standard, this software will play a critical role in delivering important usage reports in a meaningful, usable format to consortia spending millions on electronic resources.

**Estimated Project Budget** - The total amount requested from IMLS is \$247,500. We estimate: Technical consultant and application development - \$140,000; User interface design - \$15,000; Project management staffing - \$40,000; Virtual server services, data storage & setup - \$20,000; Meeting travel - \$6,000; Pilot implementation & community-building meeting costs: \$4,000. Indirect PALCI costs at a rate of 10% - \$22,500; Although no match is required, there will be significant in-kind contributions.