

# Business Requirements Specification (BRS)

- 1 [Introduction.](#)
- 2 [References.](#)
- 3 [Business Management Requirements.](#)
- 4 [Business Operational Requirements.](#)
- 5 [Preliminary Operational Concept of the Proposed System.](#)
- 6 [Other Preliminary Life-Cycle Concepts.](#)
  - 6.1 [Acquisition.](#)
  - 6.2 [Deployment.](#)
  - 6.3 [Support.](#)
  - 6.4 [Retirement.](#)
- 7 [Project Constraints.](#)
- 8 [Appendix.](#)

## Introduction.

The Library of Congress is the worlds largest library for books, recordings. photographs, newspapers, maps, and manuscripts. They are also the main research and U.S Copyright sector of the U.S. Congress. One of the systems they provide for their handicapped users is the BARD system that provides access to these resources for these communities as necessary.

The purpose for this project is to modernize the current system. This modernization goal is to update the framework and provide the capability for at least double the current users to access the system.

The Library of Congress is working with Slalom's Public Sector and Development Team in order to identify ways to make the BARD system easier to use and give it an updated look that is more appealing to patrons. This will make using the system easier and provide a more seamless interaction when searching for resources through the Library of Congress.

The major stakeholders for this project are as follows;

1. Library of Congress.
2. The Committee on the Rights of Persons with Disabilities.
3. The blind community.
4. Slalom.

## References.

- [BARD System](#)
- [Slalom - What we do.](#)
- [https://en.wikipedia.org/wiki/On-premises\\_software](https://en.wikipedia.org/wiki/On-premises_software)
- <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>
- <https://www.loc.gov/about/>

## Business Management Requirements.

The BARD system is currently only used by NLS patrons whom are U.S citizens living both in the U.S and abroad. This system is used with an NLS account and select devices that allow for the download and consumption of resources offered by the Library of Congress.

The current system works on an outdated PHP framework and local on-prem servers which limits usability as well as total patron access. This modernization process seeks to increase the amount of patrons who can utilize the BARD system including;

- Patrons of the blind community.
- Patrons with physical disabilities.
- Patrons with learning/reading disabilities.
- Family and friends of NLS and BARD patrons.
- Librarians at the Library of Congress.

Slalom will create an inhouse platform team to handle the internal workflows for updating and modernizing the BARD system. This team will be tasked with transitioning the current framework and servers to the newer systems and will also be responsible for ensuring these conversions are not affecting the current system environment during this transition period.

## Business Operational Requirements.

The business processes for this project are the product deliveries after each sprint, with each sprint lasting 4 weeks long.

The business processes for this project are:

1. Framework decision.
  - a. Determine the best framework to change the system to.
  - b. This should keep functionality and provide beneficial change in the form of better online support, updated documentation, and more user accessibility.
2. Server decision.
  - a. Determine the best server to move the current system to that will enable up to 3x the current user count.
3. Prototype.
  - a. Recreation of aspects of the current system in the newer framework to provide a prototype demonstration to the Library of Congress and CRPD.
  - b. This will ensure the new system is within the correct scope that the Library of Congress is looking for and inline with CRPD feedback.
4. Plan of action for transitioning.
  - a. In order to transition the current system to the new system, a plan must be put in place to minimize impact on current patrons using the service.
5. Development of the new framework.
  - a. developing the infrastructure and functionality for the new framework will begin.
6. Development of the new servers.
  - a. Designing and developing the new servers in preparation for transition will begin.
7. Implementation of the new framework and servers.
  - a. With the new framework and servers developed they will begin being implemented into the current system to phase out the old PHP framework and on-premises servers.

Business processes will be completed one at a time, with the new business processes being allowed to start without the previous being completed. With the goal being a smooth transition to the modernized system from the system already in place, allowing concurrent progress of business processes will allow testing of new additions to be made as well as providing a seamless transition period from the current system to the new one.

The effectiveness of the business processes will be determined based on a number of story points that need to be met for each sprint as well as checking to make sure they do not impede with current traffic on the BARD system, whether they maintain current functionality and ease of access found on the current system, and whether they are completed in time for the implementation and testing of the new system as a whole.

To evaluate these processes we will use premade tests created before development occurs. These test run as expected on the current system, so they will be an indication of whether the new system maintains functionality. In order to test for a smooth transition period, trials will be run while the current system is still up in order to determine whether the transition has had an impact on patrons who are using the system during that time.

The proposed system shall provide functionality that meets and exceeds the current system in place. The current system allows patrons to sign up for an account with the NLS, provides access to thousands of special-format books, magazines, and music scores and allows patrons to download all of those files as compressed audio or formatted ebraille files.

## Preliminary Operational Concept of the Proposed System.

This project is dealing with the modernization of the current BARD system provided by the Library of Congress. This system is currently using an outdated framework and on-premise servers for hosting the BARD system on the web and distributing books along with other resources to disabled communities.

The proposed system seeks to modernize the current system by upgrading the framework to a more current and supported framework to enable better IT support, easier changes, and more usability. The current system lacks an adequate server for hosting the website and data to ensure user data protection and information integrity. The proposed system seeks to modernize these servers to not only make them more secure, but to allow for a wider and larger user-base of the BARD system.

The system will operate as it does in its current state. The modernization seeks to only add upgrades to the current system while maintaining much of the current functionality and features. The BARD system currently operates as a database for users to search through and provides a wide variety of information in a number of delivery possibilities to best accommodate each of the user classes.

The main user classes that currently use the system include patrons who are; blind, physically disabled, mentally disabled, and visually impaired. Other user classes of the BARD system include friends and family of the patrons in the main user classes, workers at the Library of Congress who may be assisting in resource discovery or IT maintenance on the website, and Slalom developers discovering how the system shall be transitioned to the new framework and server implementation.

Slalom will be training the IT support at the Library of Congress in order to maintain the system post-launch. This will enable Slalom to be hands-off while allowing patrons of the system to obtain help when needed directly from the Library of Congress and other NLS libraries.

## Other Preliminary Life-Cycle Concepts.

### Acquisition.

The acquisition for this system will be a transferring of control from Slalom to the Library of Congress following the completion of the project. The Library of Congress are the customers who already own and operate the system in question, and are the main source of requirements. The

source of the solution is coming from Slalom whom will be providing their own resources to enable the modernization of the BARD system for the Library of Congress.

In regards to elicitation, Slalom will be tasked with eliciting requirements from the Library of Congress and other stakeholders as mentioned earlier in this document. The elicitation will take place in the planning stages and be conducted via interviews and surveys of current and prospective users of the BARD system.

Slalom will also be tasked with determining initial validation of the product based on whether the product delivery for the sprint meets required story points. The Library of Congress will be secondary validation for the completeness and overall satisfaction of the improved system.

### **Deployment.**

The system will be validated based on the number of story points completed for the given sprint. Each sprint will last a total of 4 weeks, and the number of story points for each sprint will be determined by the development team at Slalom. Validation will take place regularly, but most importantly at the end of each sprint and following the completion of the project.

The system will be delivered at the end of the each sprint with new aspects of the system being implemented and the old system being transitioned to the new implementations. This will allow the improvements on the framework and servers to be introduced into normal operations of the BARD system without any interference to the current operations of the system.

### **Support.**

Slalom has committed to being available to support the Library of Congress after delivering the product. Slalom has also committed to training IT staff at the Library of Congress important aspects to the maintenance of the new systems so the need for Slalom assistance in the future can slowly be phased out and the in-house support at the Library of Congress can take over permanently.

### **Retirement.**

The system has no retirement plans at the moment.

### **Project Constraints.**

This project shall be completed within a years time. This time frame is for planning, development, and deployment of the modernized BARD system. This project budget is based on the amount of developers needed for the project, but there is ultimately no budget cap for the entire project and shall only be completed when the full transition to the new framework and servers is complete. This means the new system will be up and running and be fully functional with the modernized additions and changes.

### **Appendix.**

- BARD - Brail and Audio Reading Download.
- CRPD - The Committee on the Rights of Persons with Disabilities
- On-Premises server are servers are located locally to the business they serve.
- PHP - A web-development scripting language.
- LoC - Library of Congress
- NLS - National Library Service