

# System / Software Requirements Specification (SRS)

## Identification

The modernization of the Library of Congress BARD system.

SRS Version 1.0

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This SRS has been created for the modernization of the Library of Congress's BARD system as part of a project for CEN 3073 - Requirements Engr & Analysis.

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## Introduction

### Purpose

As a business, the Library of Congress is looking to update its current BARD system infrastructure and provide better availability to the disabled community.

### Scope

Library of Congress Braille and Audio Download system.

The business domain for this project is the online access of information kept by the Library of Congress.

The range of business activities in which this project is concerned include updating the backend aspect of the current system, providing better accessibility to multiple disabled communities, and overall upgrading the system for a larger user base.

The scope of this project is the BARD system that the Library of Congress offers, along with its underlying code infrastructure and features provided. This also includes the scalability to provide access to more users than previously, both in volume and accessibility.

Slalom is made up of multiple teams. These teams are split among the multiple jobs required to assist the Library of Congress;

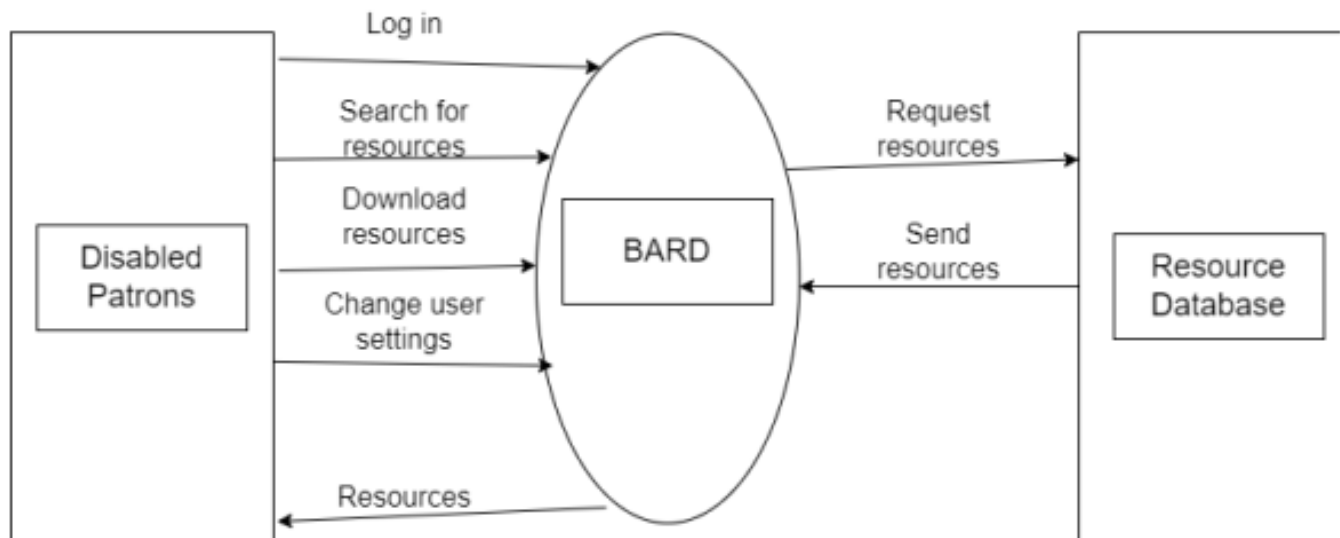
- The backend designers working on upgrading from the old PHP framework used.

- The database engineers working on upgrading the database holding all of the resources and BARD user information. This team is overall responsible for changing the on-prem servers to a cloud-based solution to allow for larger amounts of data that are not centrally and locally held.

### Product overview

#### Product perspective

Level-0 Dataflow Diagram



### Product functions

- Deaf users can access the BARD system in order to access various forms of the resources offered including:
  - Braille books.
  - Audiobooks.
  - Audible transcripts.
  - Music.
- Other users from disabled communities can access the BARD system to access various forms of resources offered including:
  - Audiobooks.
  - Audio transcripts.
  - Music.
  - Magazines.
  - Books.

### User characteristics

The users of the BARD system will include new and experienced users. With the hope of increasing the reach of the BARD system to more US citizens, it will be important to take into account users who are unfamiliar with the system itself and how to gain access to and use it. These new users will also need to be aware of whether or not they qualify for an account as well as what devices they can use with the BARD resources. The experienced users will want the functionality to remain the same from the previous system to the modernized system, but will surely welcome some needed enhancements to the design and layout of the system. These experienced users will also have the base knowledge for access and utilizing the current system which will enable a smooth transition for them to the new system that will have much of the same aspects.

### Limitations

Key	Summary	P	Labels
SLA-18	Current functionality cannot be removed from the BARD system.	==	Limitation
SLA-17	New functionality cannot be added to the BARD system.	==	Limitation
SLA-16	The BARD system but be compatible with the same talking-book devices as before the modernization process began.	==	Limitation
SLA-15	The BARD system must be compatible with the same browsers as before the modernization process began.	==	Limitation
SLA-14	PHI and PII information for BARD users cannot be accessed at any time by employees of Slalom.	==	Limitation
SLA-13	The transition period for the BARD database changes cannot exceed 1 hour.	==	Limitation
SLA-12	The new database must use a cloud-based solution.	==	Limitation
SLA-11	The new backend framework cannot be PHP-based.	==	Limitation
SLA-10	The transition period for BARD backend framework changes cannot exceed 1 hour.	==	Limitation

## Definitions

There are no definitions necessary for this project.

## References

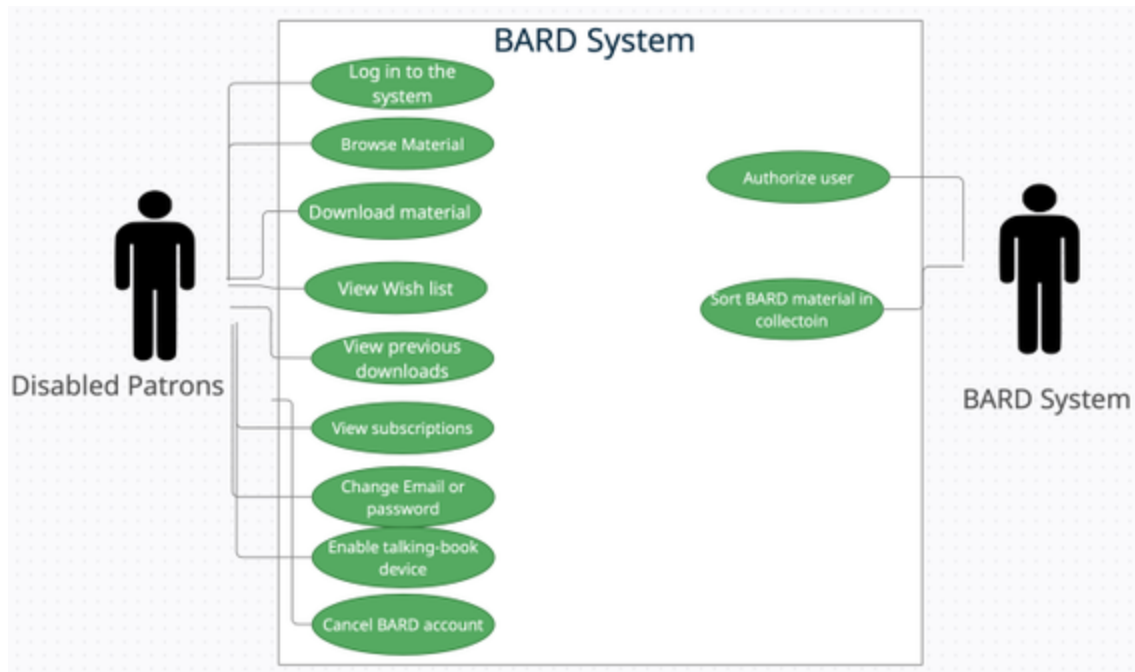
- [BARD System](#)
- [Slalom - What we do.](#)
- [https://en.wikipedia.org/wiki/On-premises\\_software](https://en.wikipedia.org/wiki/On-premises_software)
- <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>
- <https://www.loc.gov/about/>

## Specific requirements

Key	Summary	T	Linked Issues	P	Labels
SLA-38	The BARD system does not save patron personal information in accordance with PII and PHI government regulations.				
SLA-37	The BARD upgrade shall be completed within 1 year of starting.				
SLA-30	When a user visits the BARD home page, the system shall display books that have been recently added within the last month.		<a href="#">SLA-9</a> , <a href="#">SLA-6</a> , <a href="#">SLA-8</a> , <a href="#">SLA-7</a>		Functional, Interface, Usability
SLA-29	When a user downloads a reading resource from the BARD, the system shall ask the user for a download destination.		<a href="#">SLA-9</a> , <a href="#">SLA-6</a> , <a href="#">SLA-8</a> , <a href="#">SLA-7</a>		Functional, Interface, Usability
SLA-28	When a user downloads an audiobook from the BARD, the user's talking-book device shall receive the download in within 1 minute.				Database, Functional, Performance
SLA-27	When a user searches the BARD for braille or audiobooks, the BARD shall display them in a list with default filters.		<a href="#">SLA-9</a> , <a href="#">SLA-6</a>		Functional, Interface, Usability
SLA-26	The transition to the new framework for the BARD system shall have a downtime of less than 1 hour.				Nonfunctional, Usability
SLA-25	The filtered list shall display resources on a page with no more than 25 results at a time.				Functional, Interface, Usability
SLA-24	When the database receives multiple requests for downloads at the same time, it shall respond to these requests within 1 minute of receiving them.				
SLA-23	When a user logs in from an IP outside of the U,S, the authentication will grant them access.				Functional, Performance
SLA-21	When a user downloads a resource from the BARD, the system shall retrieve the resource from the database within 1 minute.		<a href="#">SLA-9</a> , <a href="#">SLA-6</a> , <a href="#">SLA-8</a> , <a href="#">SLA-7</a>		Database, Functional, Performance
SLA-20	When a user attempts to log in for the first time, the authentication system shall request the user to enter a new password.				Functional, Usability
SLA-19	When a user attempts to log in, the authentication system shall authenticate the user's credentials within 30 seconds.				Functional, Performance

13 issues

<b>Primary Actor</b>	<b>Use Cases</b>
Disabled Patron (Blind, deaf, other disabilities, or caretakers)	<ol style="list-style-type: none"> <li>1. Log in to the system.</li> <li>2. Browse material.</li> <li>3. Download material from BARD.</li> <li>4. View wish list.</li> <li>5. View pervious downloads.</li> <li>6. View subscriptions page</li> <li>7. Change email or password.</li> <li>8. Enable digital talking-book player or another device.</li> <li>9. Cancel BARD account.</li> </ol>
BARD System	<ol style="list-style-type: none"> <li>1. Authorize user.</li> <li>2. Sort material.</li> </ol>



## Verification

Key	Summary	Verification Approach
SLA-18	Current functionality cannot be removed from the BARD system.	
SLA-17	New functionality cannot be added to the BARD system.	
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## Appendices

### Assumptions and dependencies

My/My Sponsor's Assumptions for the project:

- The current system does not encompass stakeholder needs and requirements
- The current system uses is outdated frameworks
- The system currently causes the yearly user count to remain relatively low so by expanding the design and resources the system will be able to reach 4-5x the previous yearly user count.
- The system needs to be scalable

### Acronyms and abbreviations

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