I. Problem/Value Statement

Problem Statement

After more than 20 years of productive incremental enhancement, Harvard Library's Digital Repository Service (DRS) has reached the effective limits of its conceptual design and operational implementation. In its current form, the DRS is no longer an appropriate platform for flexible, responsible, and sustainable preservation of the Library's digital collections, especially as they are envisioned to grow in number, size, and diversity in coming years.

Business Value

This project provides a needed generational modernization of the DRS, positioning it as the foundation for meeting the Library's ever-evolving preservation goals, needs, and aspirations. Three decades into the 21st-century information age, this digital capacity is critical to the ongoing success of Harvard's research, teaching, and learning mission, as well as the safeguarding of its intellectual and institutional legacy. This effort benefits current and future students, scholars, administrators, and staff.

II. Vision and Approach

Vision

The modernized DRS will provide effective, efficient, and sustainable long-term preservation of and access to University digital content in any genre or format, of any number or size, in any language, with any description, for any duration, secure against any eventuality, for any (re)use pertinent to the University's research, teaching, and learning mission and smooth administrative operation.

Approach

The project will reconceive, design, acquire and/or develop, and deploy modern repository infrastructure addressing the Visionary aspirations and providing the Business Value outlined above. Project activities will embrace transparency and accountability; be guided by extensive stakeholder engagement and critical understanding of state-of-the-art archival theory and professional best practice; rely upon close consultation and collaboration between HL, HUIT/ LTS, FAS RC, and other University units of relevant expertise; fully exploit advances and innovative platforms in the technological landscape; and be open to consideration of community-supported open-source as well as commercial solutions and internal targeted add-value development.

III. In Scope/Out of Scope

In-Scope

Four nominally-sequential phases of:

- Preparation – Assembling project team and creating initial project management artifacts.
- Discovery – Exploring possibilities of an ideal repository meeting current and future stakeholder needs, goals, and aspirations.
• **Planning** – Specifying parameters of an achievable repository consistent with available HL and LTS resources.

• **Implementation** – Deploying an operational repository with verified data/metadata migration, minimal production service interruption, training, and contingency plans.

**Out-of-Scope**

Although the modernized DRS should support the fullest possible opportunities for human and automated interoperability with other HL and University systems, implementational consideration of digital content production, cataloging, discovery, dissemination, or (re)use are out-of-scope for this project.

**IV. Deliverables/Work Products**

**0. Preparation**

• Project charter
• Timeline
• Internal communication plan and channels
• Online collaboration space(s)
• Governance reporting plan
• Job descriptions, HR classification, and hiring of Information Architect and Business Analyst
• Statement-of-work, expressions-of-interest, and contracting of Consultant(s)

**1. Discovery**

• Literature review and concept mapping
• Abstract reference models for data representation, storage, processing, and interaction
• Identification of relevant stakeholder communities across HL and the University
• Stakeholder consultation
• Use cases
• Function/non-functional requirements
• Outreach plan

**2. Planning**

• Landscape survey of possible solutions
• Evaluation rubric
• Build/build/integrate decision
• RFP and/or agile development plan
• Migration and QA plan
• Technical specifications
• Acceptance criteria

**3. Implementation**

• Local or hosted deployment of new repository infrastructure, with bare-metal, virtual, or cloud server provisioning as necessary
• Integration/customization as necessary
• Verified migration of data/metadata
• Acceptance testing and remediation as necessary
• Documentation, training, and outreach
• Decommissioning of old hardware/software
• Post-mortem reflection

**V. Stakeholders**

<table>
<thead>
<tr>
<th>Function</th>
<th>Stakeholder</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRS Business Owner</td>
<td>Digital Preservation Services</td>
<td>Stephen Abrams, Head of DPS</td>
</tr>
</tbody>
</table>
VI. Key Tasks and Outcomes

- Assemble project team and establish project best practices
- Comprehensive use cases, requirements, and specifications
- Product(s) selection
- Deployment and cutover

VII. Schedule

<table>
<thead>
<tr>
<th>Phase</th>
<th>Phase Start</th>
<th>Phase End</th>
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</thead>
<tbody>
<tr>
<td>Discovery</td>
<td>July 2022</td>
<td>Summer 2023</td>
</tr>
<tr>
<td>Planning</td>
<td>Summer 2023</td>
<td>December 2023</td>
</tr>
<tr>
<td>Implementation</td>
<td>January 2024</td>
<td>Summer 2025</td>
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</tbody>
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VIII. Constraints, Assumptions, and Risks

Constraints
• 3-year ITCRB funding
• Finite HL and LTS staffing
• Competing HL and LTS priorities
• Need to maintain operational continuity of the existing DRS throughout the project

Assumptions
• Availability of legitimate commercial and open-source products supporting critical baseline functions consistent with, and largely fulfilling, in whole or in part, aspirational DRS needs, goals, and aspirations
• High-quality pool of applicants for new projects positions and consultancies
• Willing participation of stakeholder communities

Risks
• Staffing turnover
• Failure of selected solution product(s) to work substantively as promoted and assumed

Project Documents