» RDM Architecture
» Pilot Solution Scope
» Vision
» Components and functionality
» Shared Service Requirements
High level RDM Architecture

![Diagram showing institutional and national RDM architecture](image-url)
Researchers shouldn’t need to think (too much!) about Research Data Management

• Provide researchers intuitive, easy functionality to publish, archive and preserve their research outputs.

• Provide interoperable systems to allow researchers and institutions to fulfil and go beyond policy requirements and adhere to best practice throughout the RDM lifecycle
What we need

Front End/ User Interface

<table>
<thead>
<tr>
<th>Module</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingest UI</td>
<td>Basic Metadata Entry</td>
</tr>
<tr>
<td>Data discovery UI</td>
<td>Registry/catalogue search function</td>
</tr>
<tr>
<td>Data Publication UI</td>
<td>Landing page with DOI, Discovery Metadata, and metrics</td>
</tr>
</tbody>
</table>

Middle Layer

- Data Registry/ Catalogue/ Repository
- APIs CRIS, DataCite, ORCID, LOD, funders etc.
- Archival Management

Storage Layer

- Access Data Storage
- Archive Data Storage

Preservation Layer

- Preservation/ Curation Metadata
- File Format Identification tools
- File media migration / transformation tools
- Emulation tools
- Other Preservation/ Curation tools
Links to R@R Portfolio

Research at risk inputs into RDM shared services pilot

Shares services

- UK research data discovery service
- UK ORCID consortium
- Usage statistics for research data
- Journal research data policy registry
- DMP online

Research data management shared service pilot

Policy practice and standards

- Funder policy guidance (EPSRC etc.)
- RDM business case and costing
- Research data metadata
- Research data spring prototypes
Requirements

» Draft Requirements Document informed by intelligence gathering and current and past projects.

» Inform Operational Requirements Tender Document released for Information with PQQ on Nov 2015 and anticipating responses in Feb 2015

» Requirements to be refined by:
  ‒ HEI and Supplier Consultation Workshops (Nov 2015)
  ‒ Pilot HEI’s (From Jan 2016)
  ‒ Expert Advisory Group (From December 2015)

» Draft requirements have been published on Jisc RDM blog: http://researchdata.jiscinvolve.org/wp/2015/11/10/rdm-shared-service-briefing-and-updated-requirements/

» Requirements will be updated as a result of these workshops and mandatory requirements assigned.
Top Level Requirements

» Enable researchers and institutions to meet funder requirements and expectations, such as the EPSRC research data policy.

» Enable institutions to efficiently provide funders with reporting information e.g. for Research Excellence Framework and EC’s OpenAIRE.

» Meet and comply with relevant information security, legal and ethical standards.

» Provide researchers with user-friendly methods to deposit, publish, share, discover, access and cite research data objects.

» Store, archive, preserve and provide access to a range of research data objects from multiple disciplines and with differing file formats, sizes and volumes.

» Work towards interoperability and exchange of metadata with institutional systems, (CRIS, publication repositories etc.) and external systems and services (national data centres, scholarly communications services, UK Research Data Discovery Service, ResearchFish, ORCID).

» Use existing identity management, authorisation and access protocols and allow for different access policies for different types of data.
Requirements Document Content

- Ingest/Deposit
- Publication
- Registry and Discovery
- Data and Metadata Exchange and Integration
- Access
- Storage (Access and Archival)
- Archival Management
- Data Preservation
- Reporting
Acknowledgements and thanks

- Architecture: John Lewis (Sheffield), Stuart Lewis (Edinburgh)
- Requirements documentation:
  - Leeds Research Data Management Pilot Roadmap
  - ADMIRe Project
  - Kaptur
  - SWORD
  - RDS - Filling the Data Preservation Gap
  - RDS - A consortial approach to integrated RDMS
  - RDS - DataVault
  - Jisc Learner Analytics Operational Requirements
  - MMU Draft Requirements
- Reviewers (so far): Jenny Mitcham (York), Chris Awre (Hull), Masud Khokhar (Lancaster), Paul Wheatley (DPC), William Killbride (DPC) & 70+ practitioners yesterday.
We want feedback! (workshop and generally) – Questions Sheets and email

Have we missed anything?

Is anything unviable?

Can upload useful and links here: https://padlet.com/john_kaye/RDSharedServices

Please fill in cards (can be anonymous) with your hopes, aspirations and any concerns about this service and shared services in general

Questions sheets on tables
We want your feedback...

Thank you!

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