



Developing sustainable research data management services: an institutional collaboration

Never Stand Still

UNSW Library

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Open Repositories 2014, Helsinki



Outline

- UNSW Library and research materials
- Research Data Management service
 - Use cases
- Relationships
 - Research practice and assets
 - Institutional
 - Governance and support
- Future work and conclusions



UNSW Library Repository Services

- Library role in management and curation of research materials
 - Fedora for underlying storage technology
 - Ex Libris Primo for search and discovery service
 - Java EE6-based content management interface
- Web-based repositories for research material
 - Faculty-based (disciplinary) collections
- ResData - research data management service
 - Catalogue of datasets
 - Research data management plan

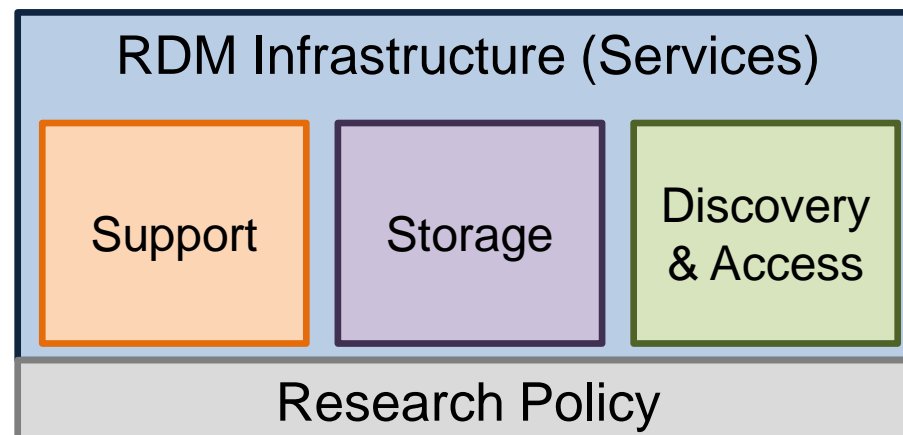
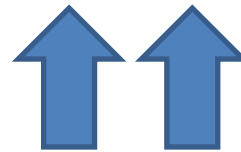
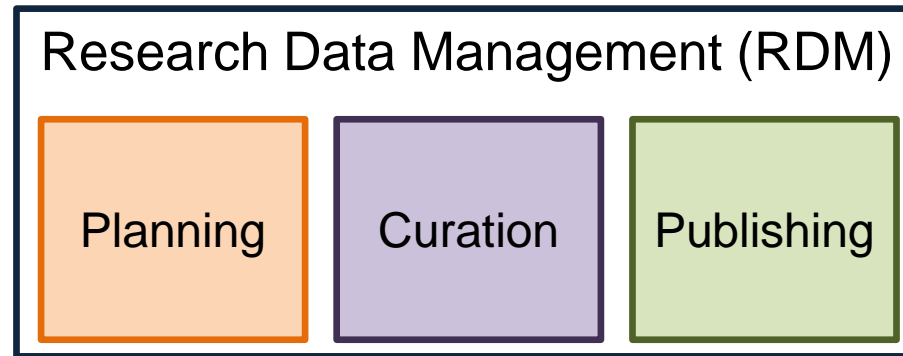




Research Data Publishing & Management

- Increasing importance of publishing research data as important resources
 - facilitates validation, reproducibility and attribution
 - requires efficient management
- Recommendation/requirements from funding bodies for research data management plans
 - the Australian Code for the Responsible Conduct of Research
 - Requires institutional policies, infrastructure and support services

Research Data Management





UNSW RDM Services – an institutional collaboration



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Library



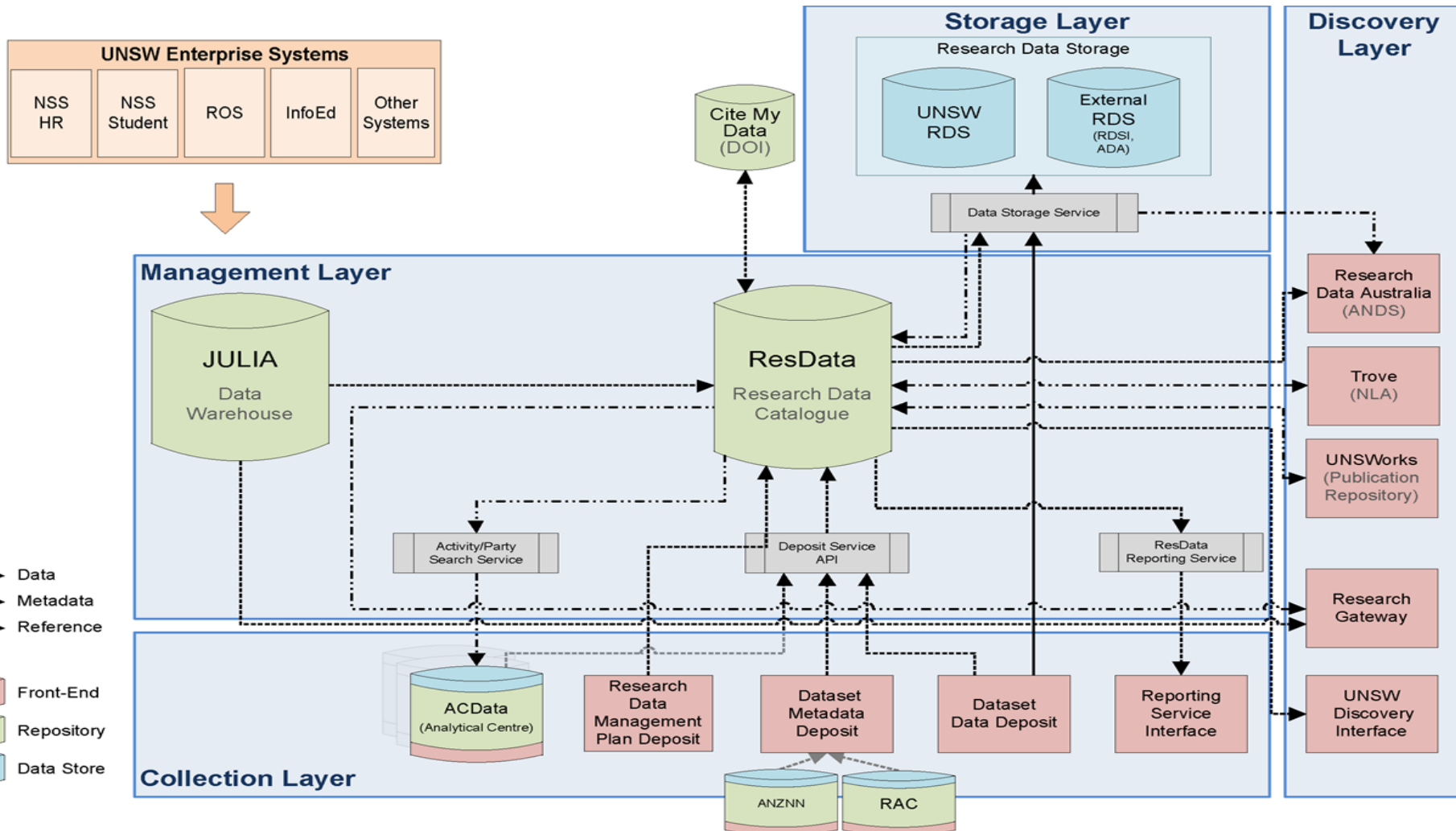
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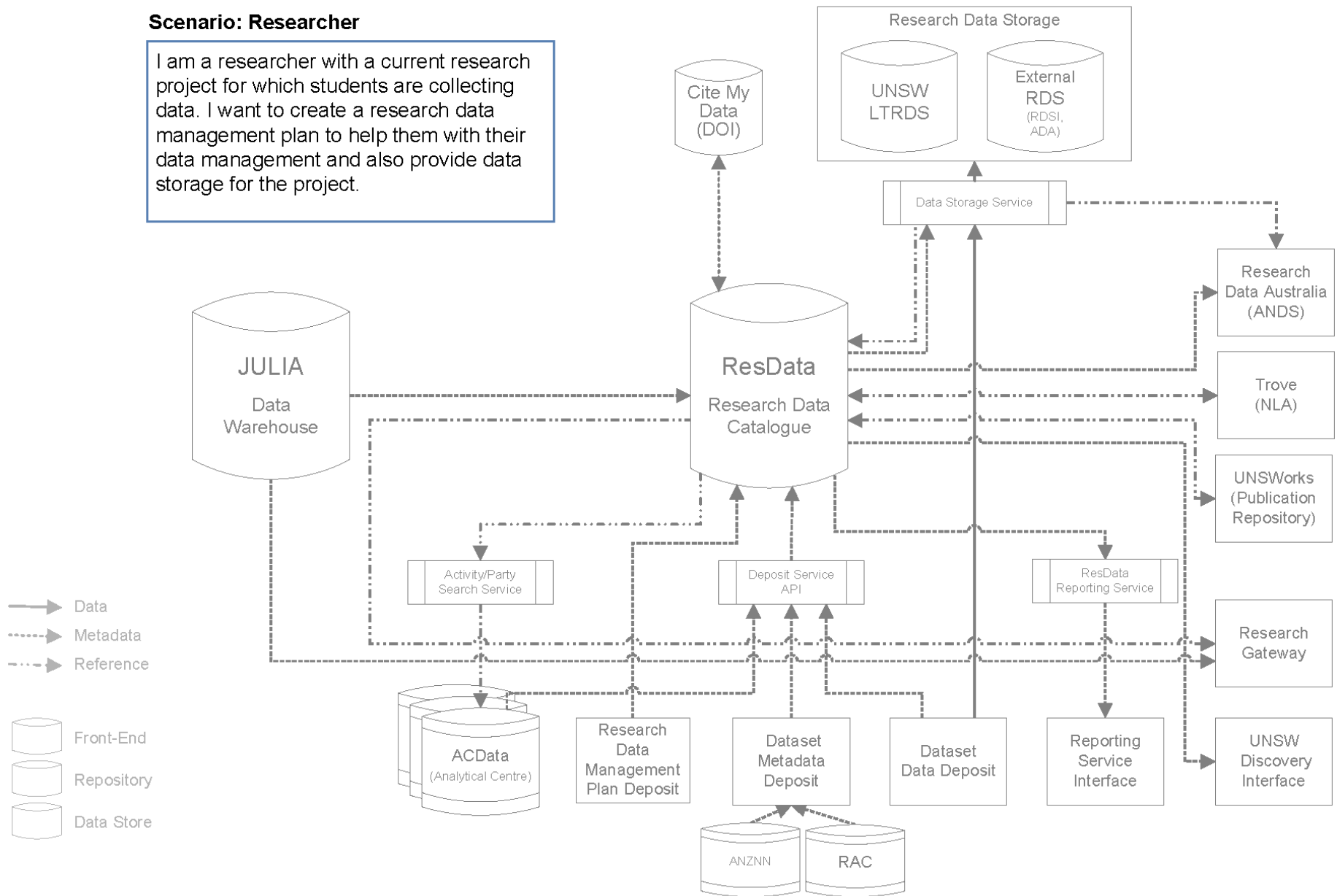
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UNSW RDM Services Architecture



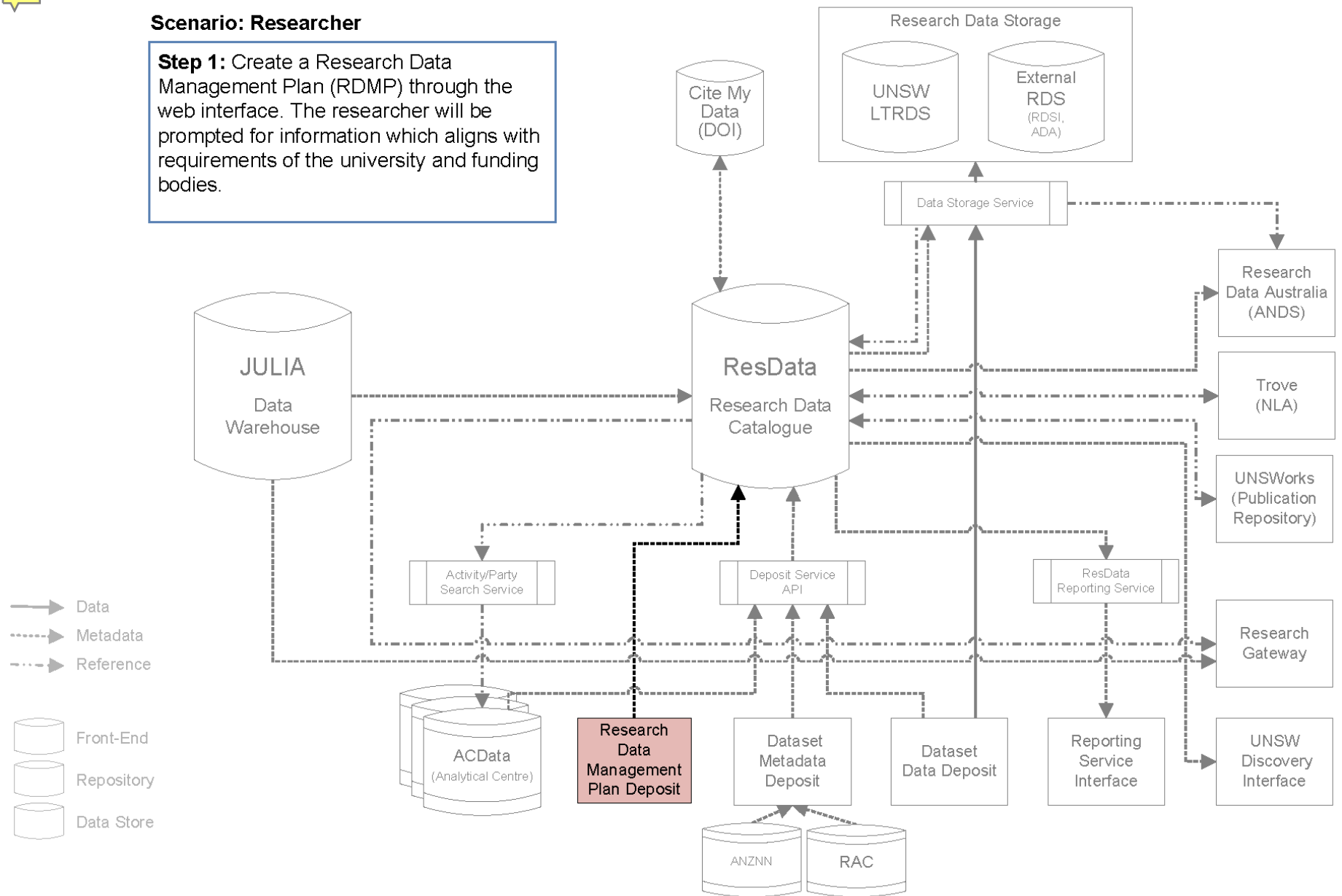
Scenario: Researcher

I am a researcher with a current research project for which students are collecting data. I want to create a research data management plan to help them with their data management and also provide data storage for the project.



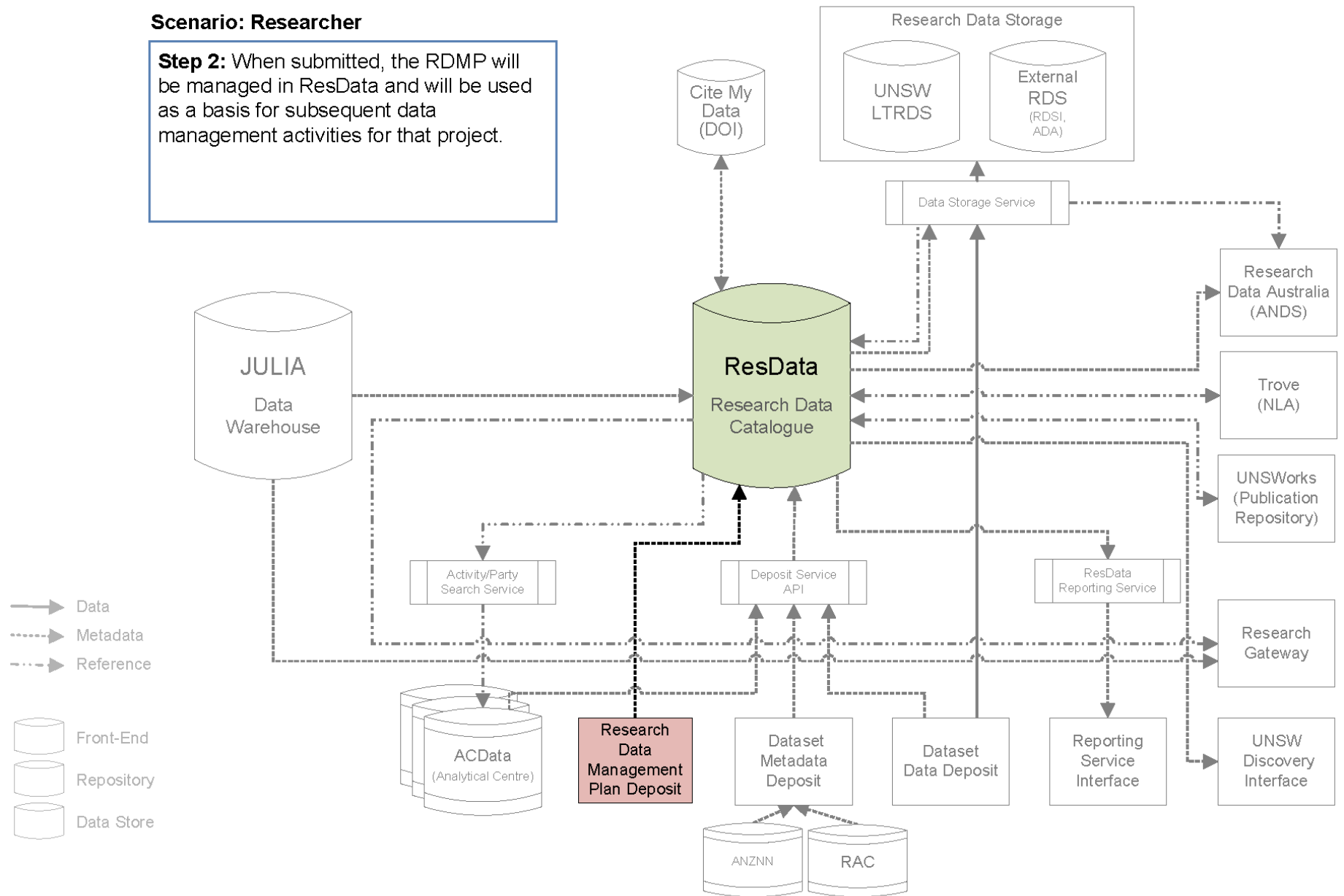
Scenario: Researcher

Step 1: Create a Research Data Management Plan (RDMP) through the web interface. The researcher will be prompted for information which aligns with requirements of the university and funding bodies.



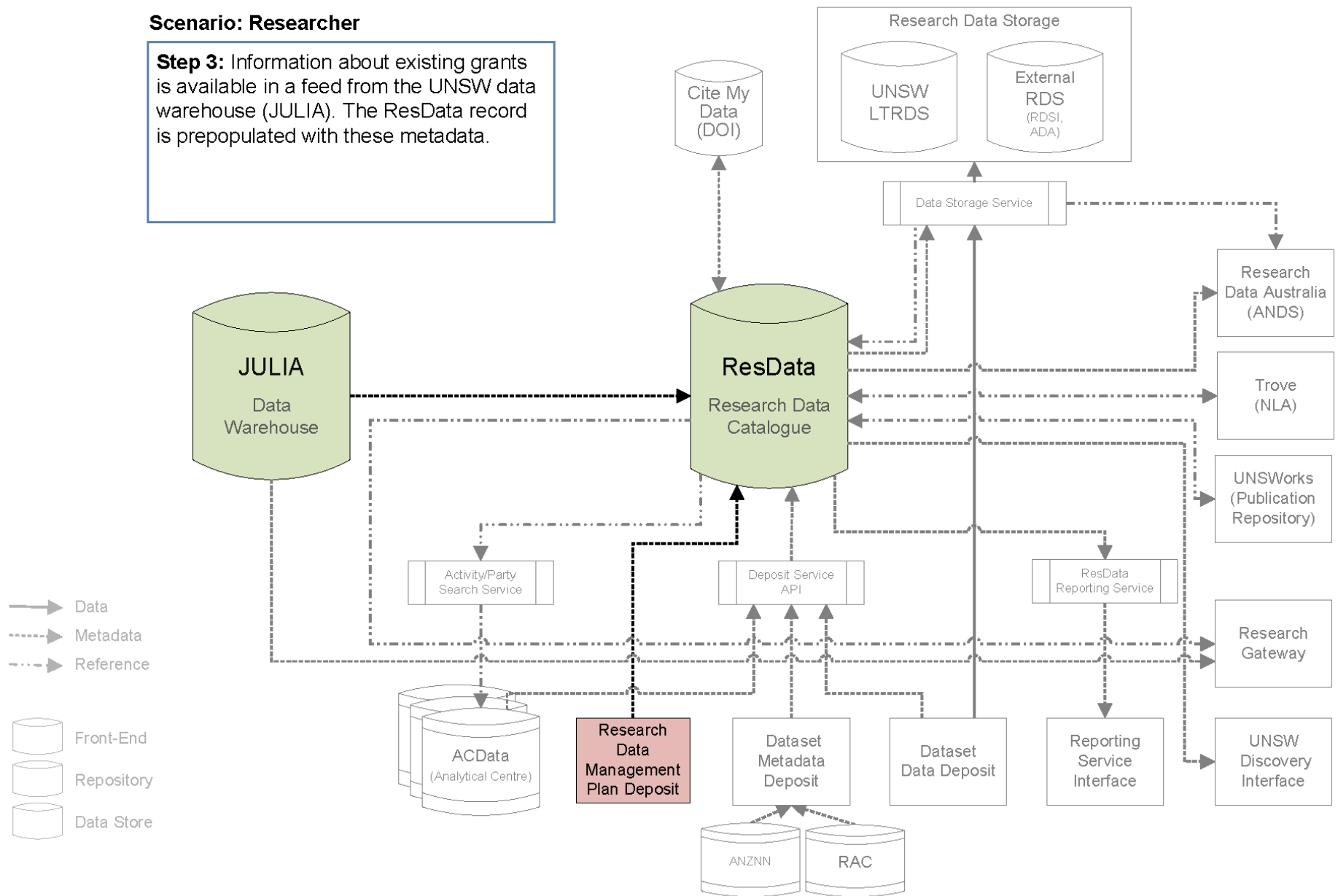
Scenario: Researcher

Step 2: When submitted, the RDMP will be managed in ResData and will be used as a basis for subsequent data management activities for that project.



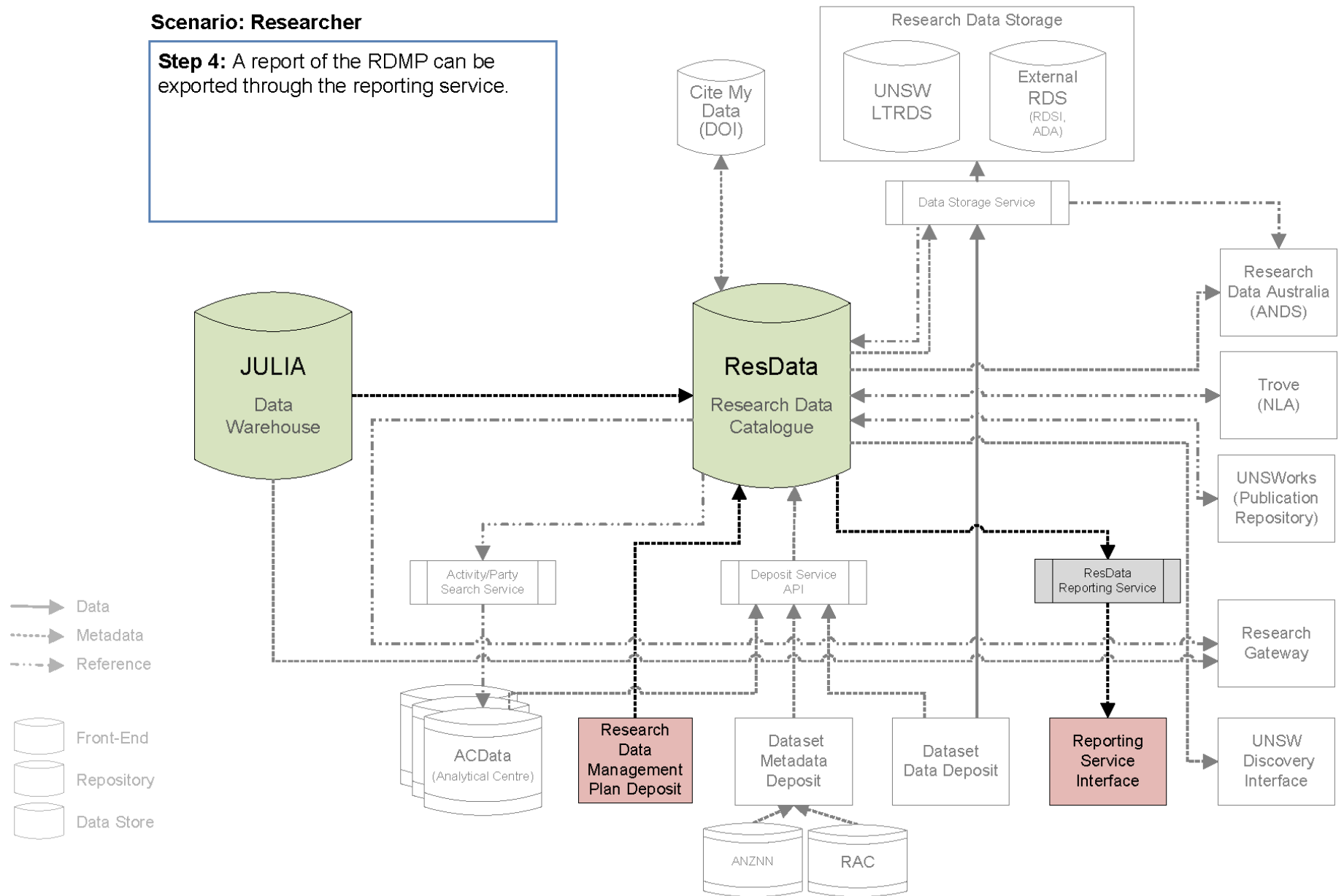
Scenario: Researcher

Step 3: Information about existing grants is available in a feed from the UNSW data warehouse (JULIA). The ResData record is prepopulated with these metadata.



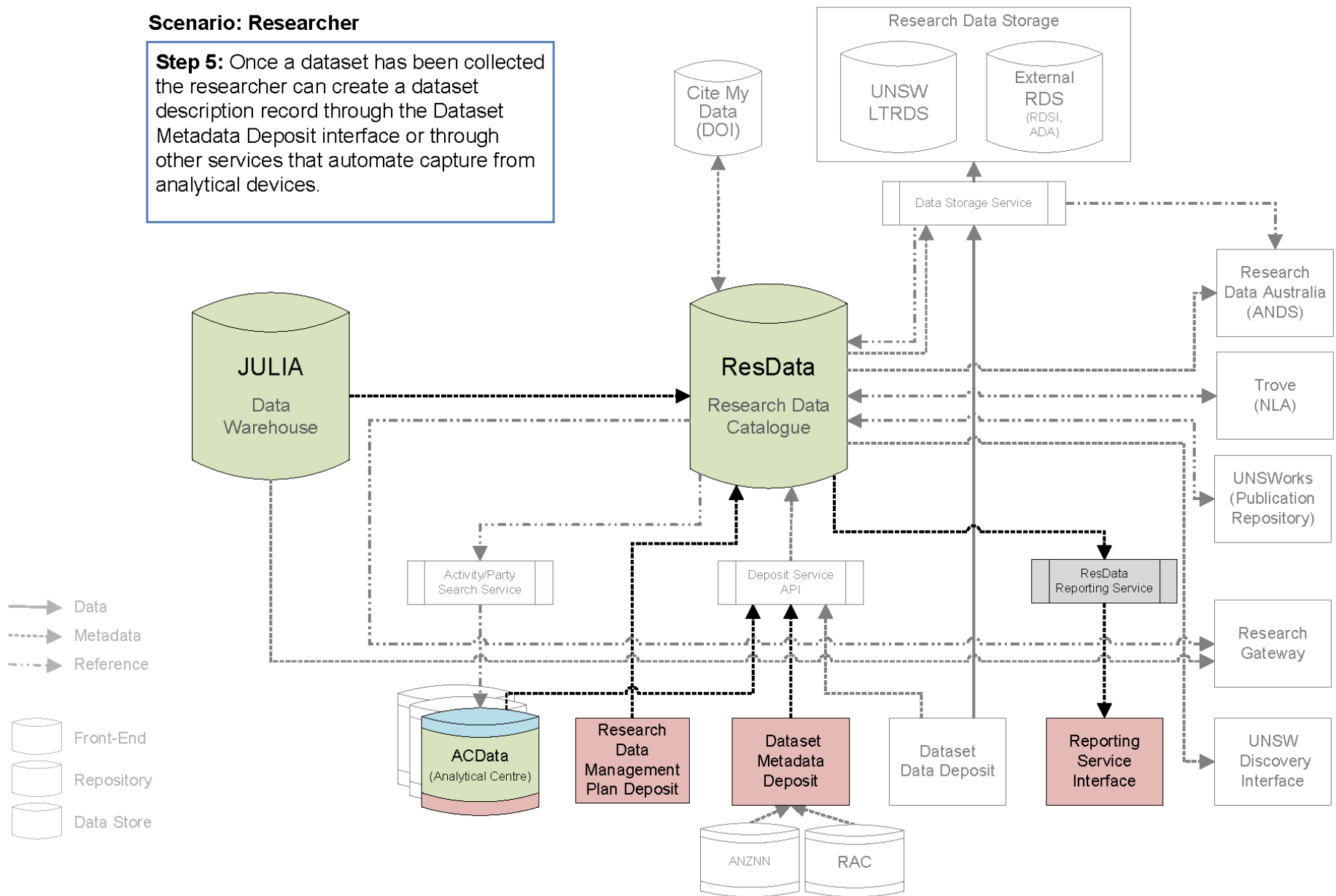
Scenario: Researcher

Step 4: A report of the RDMP can be exported through the reporting service.



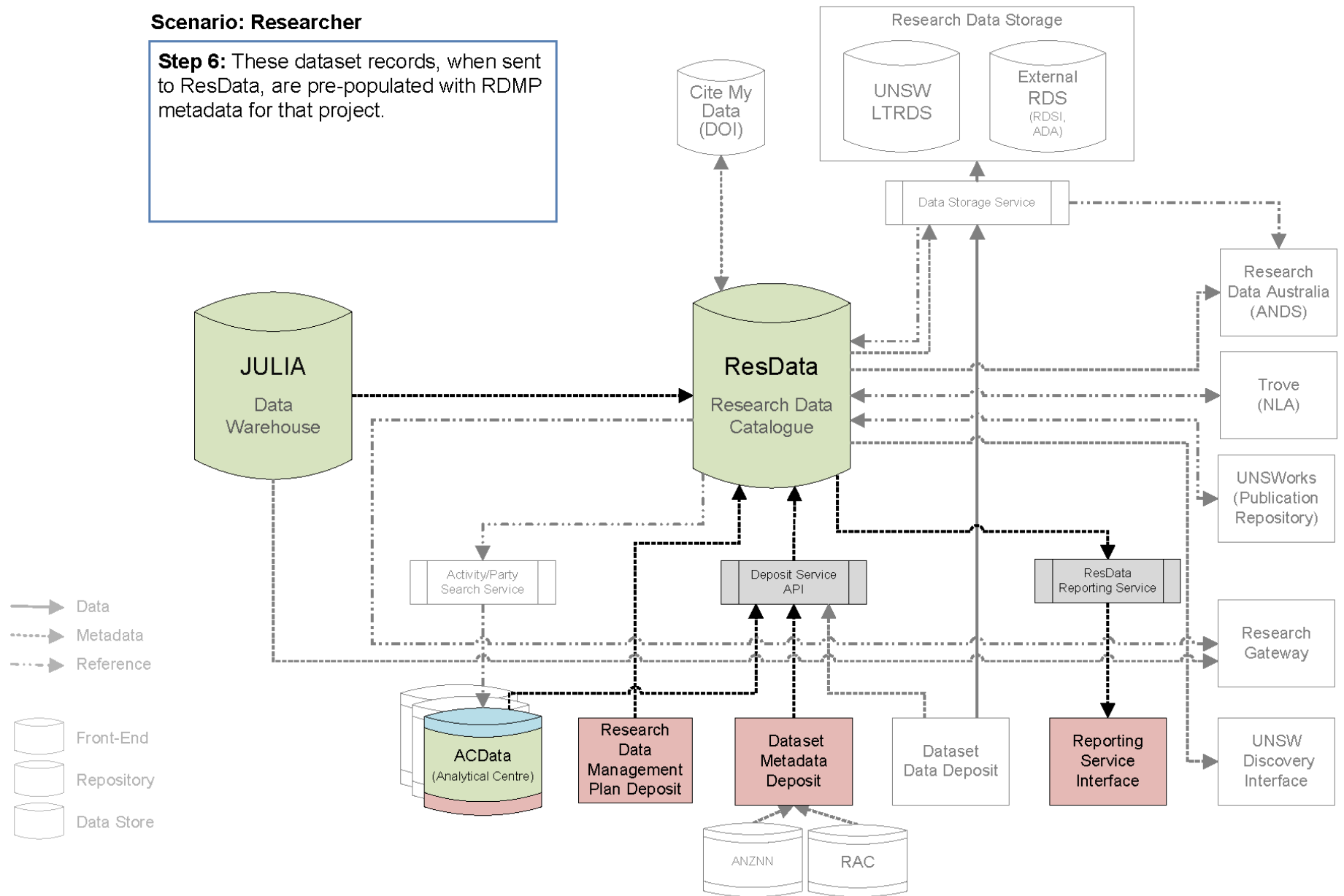
Scenario: Researcher

Step 5: Once a dataset has been collected the researcher can create a dataset description record through the Dataset Metadata Deposit interface or through other services that automate capture from analytical devices.



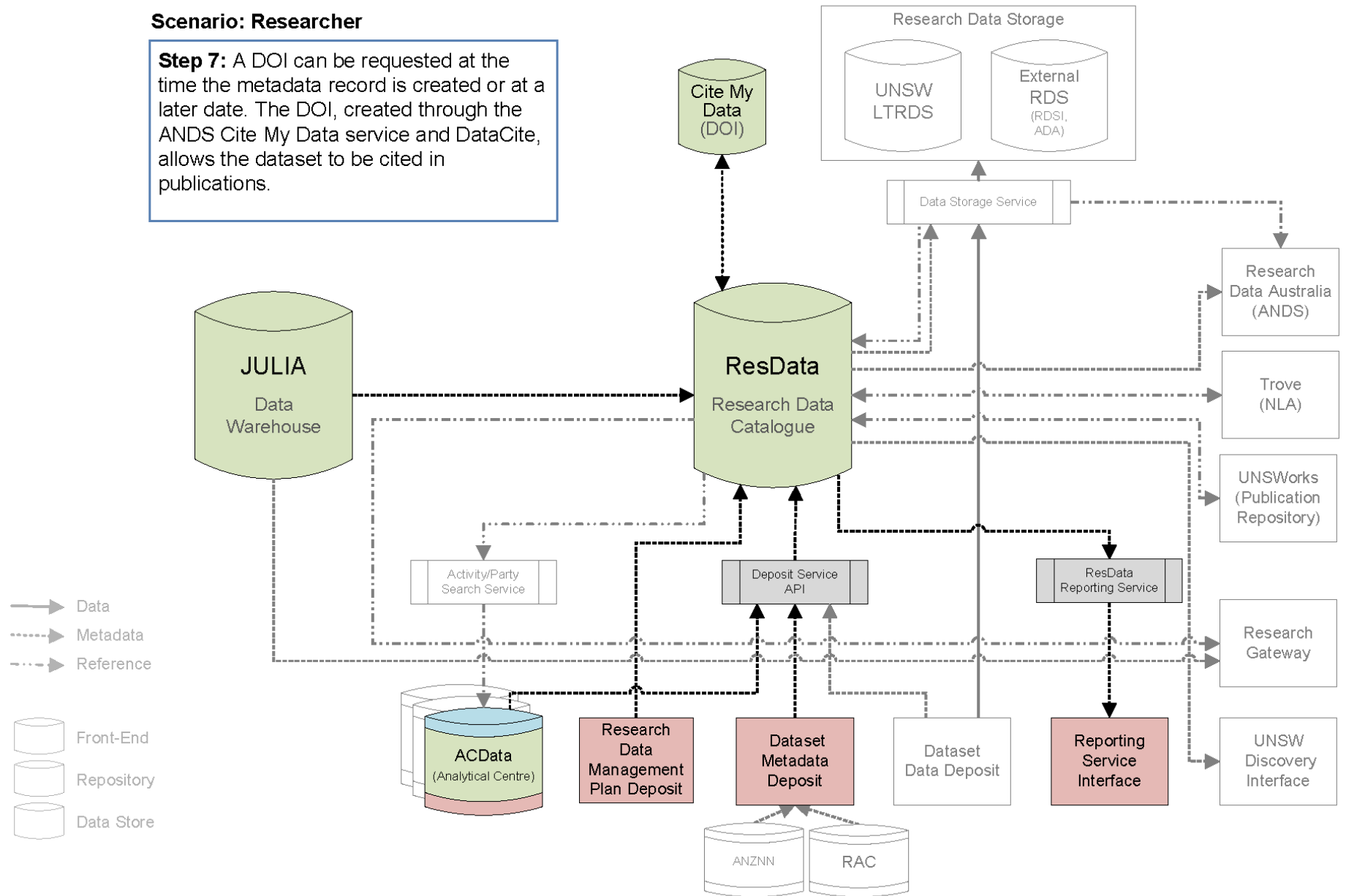
Scenario: Researcher

Step 6: These dataset records, when sent to ResData, are pre-populated with RDMP metadata for that project.



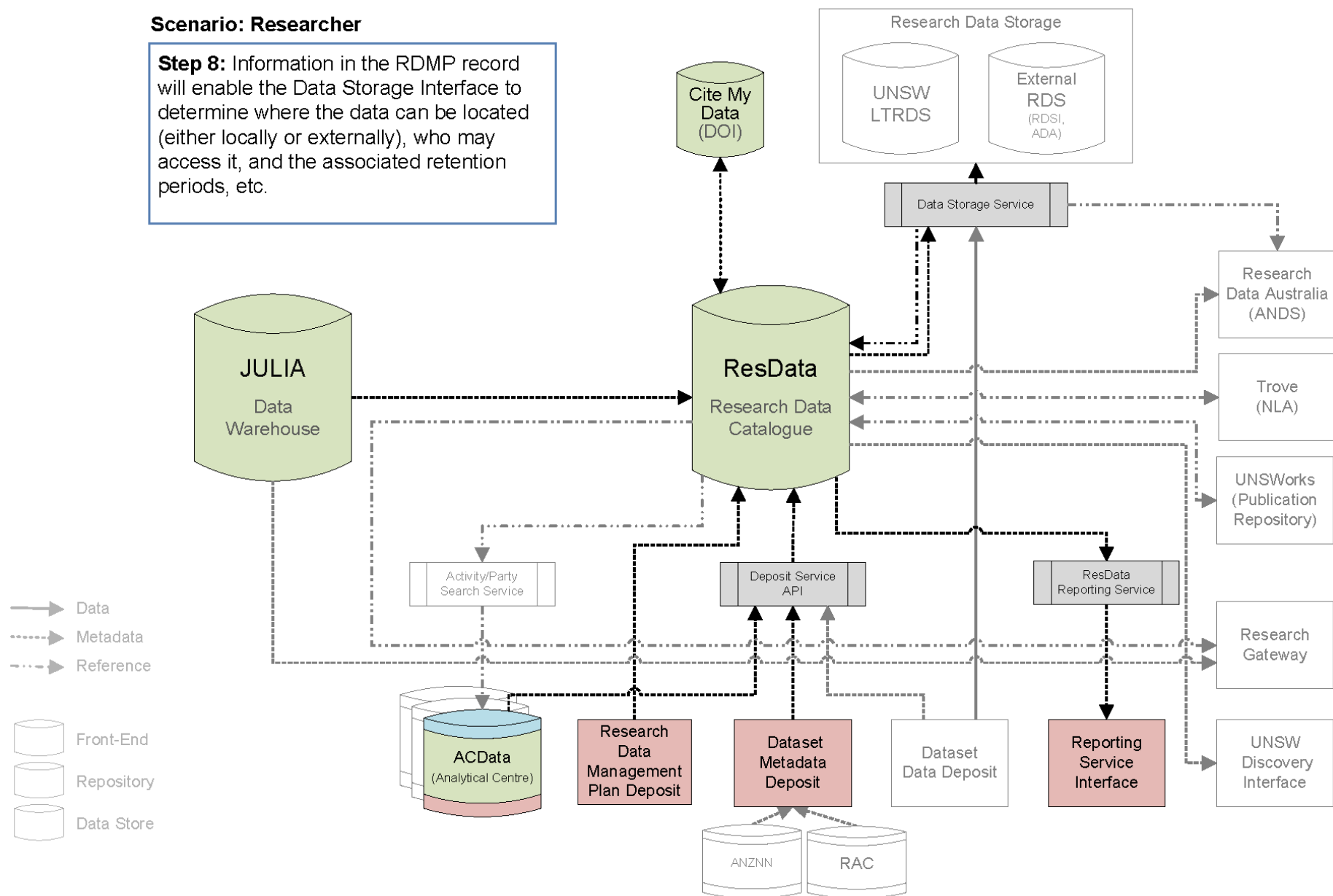
Scenario: Researcher

Step 7: A DOI can be requested at the time the metadata record is created or at a later date. The DOI, created through the ANDS Cite My Data service and DataCite, allows the dataset to be cited in publications.

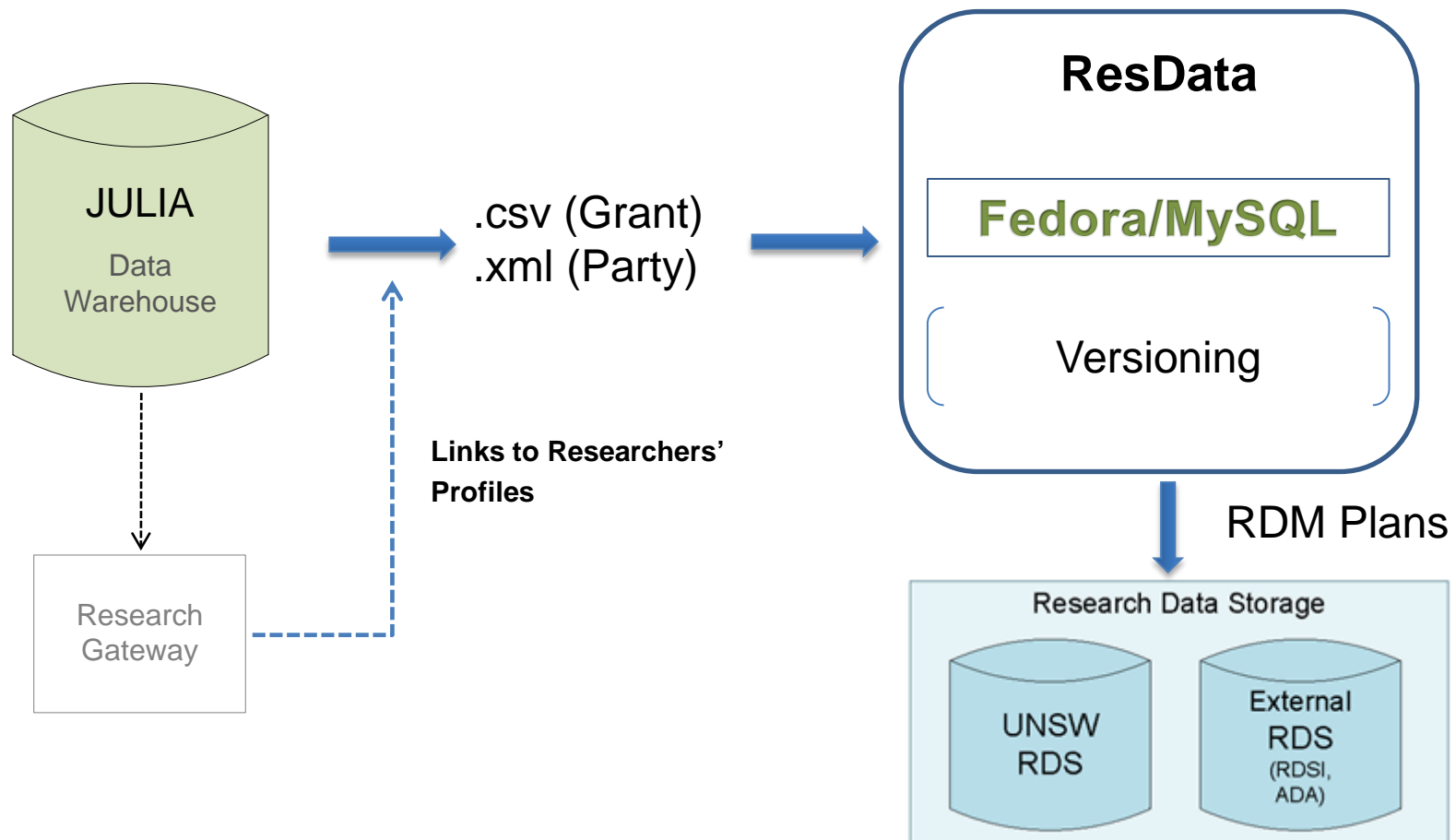


Scenario: Researcher

Step 8: Information in the RDMP record will enable the Data Storage Interface to determine where the data can be located (either locally or externally), who may access it, and the associated retention periods, etc.

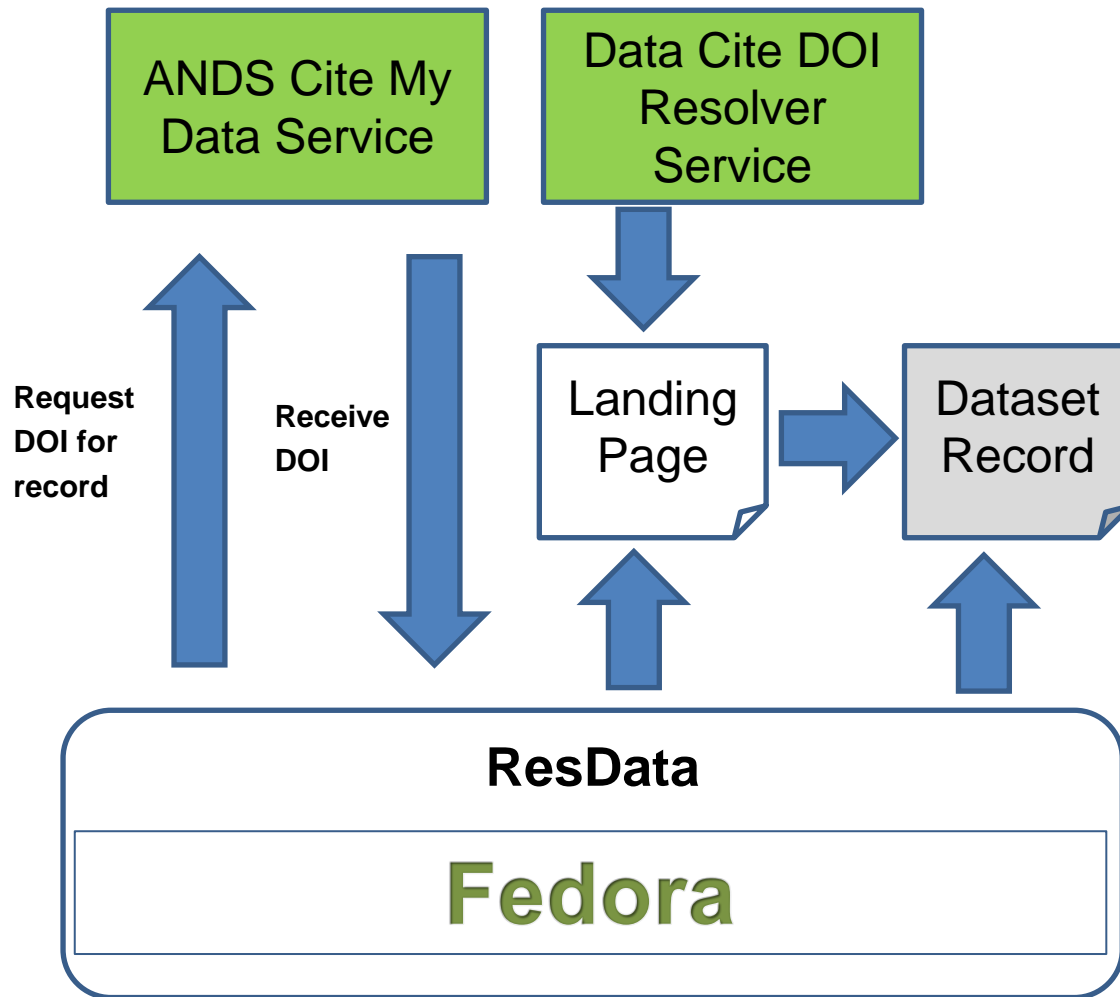


ResData Integration with UNSW Enterprise Databases



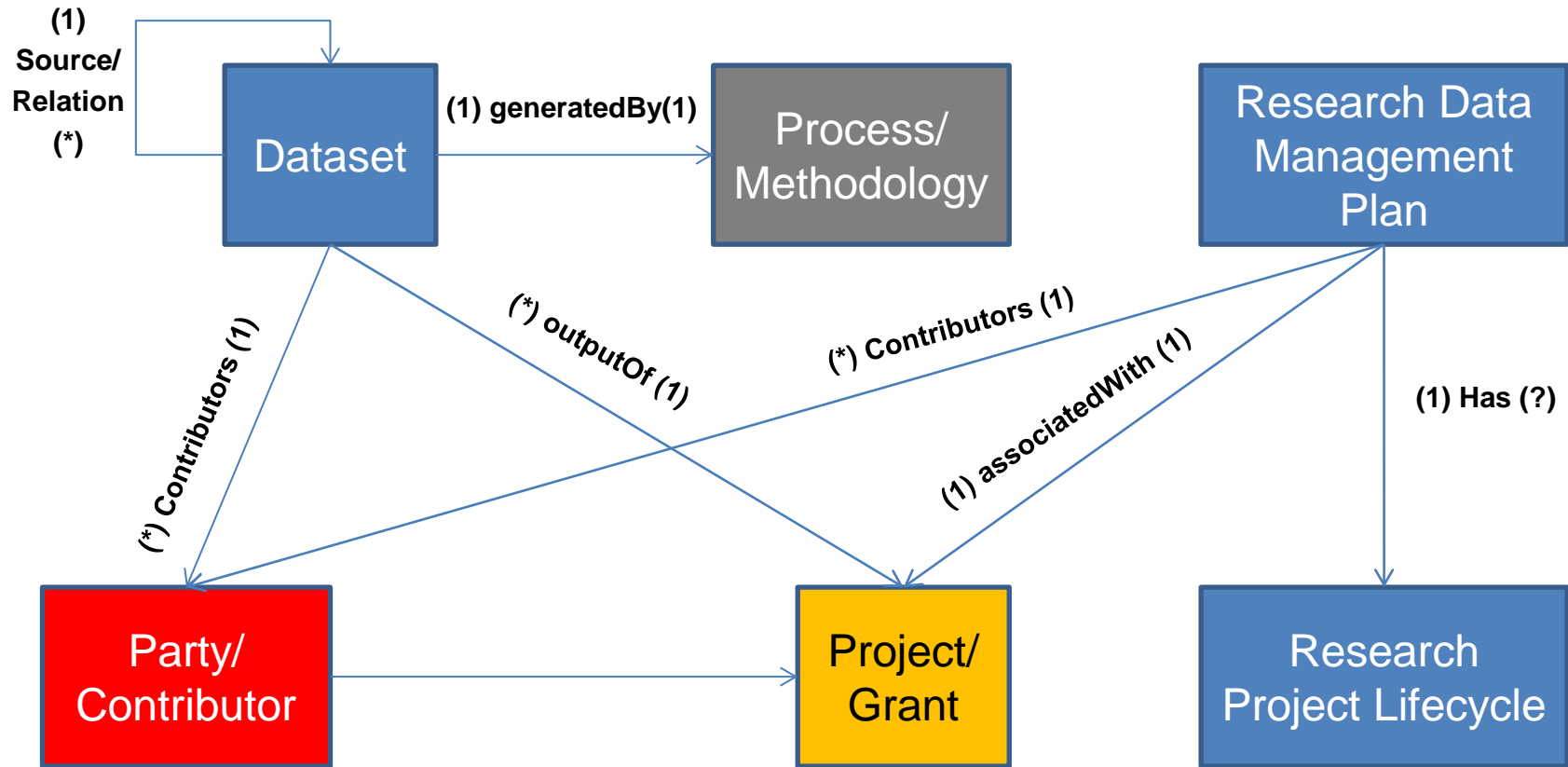


ResData Publish Workflow

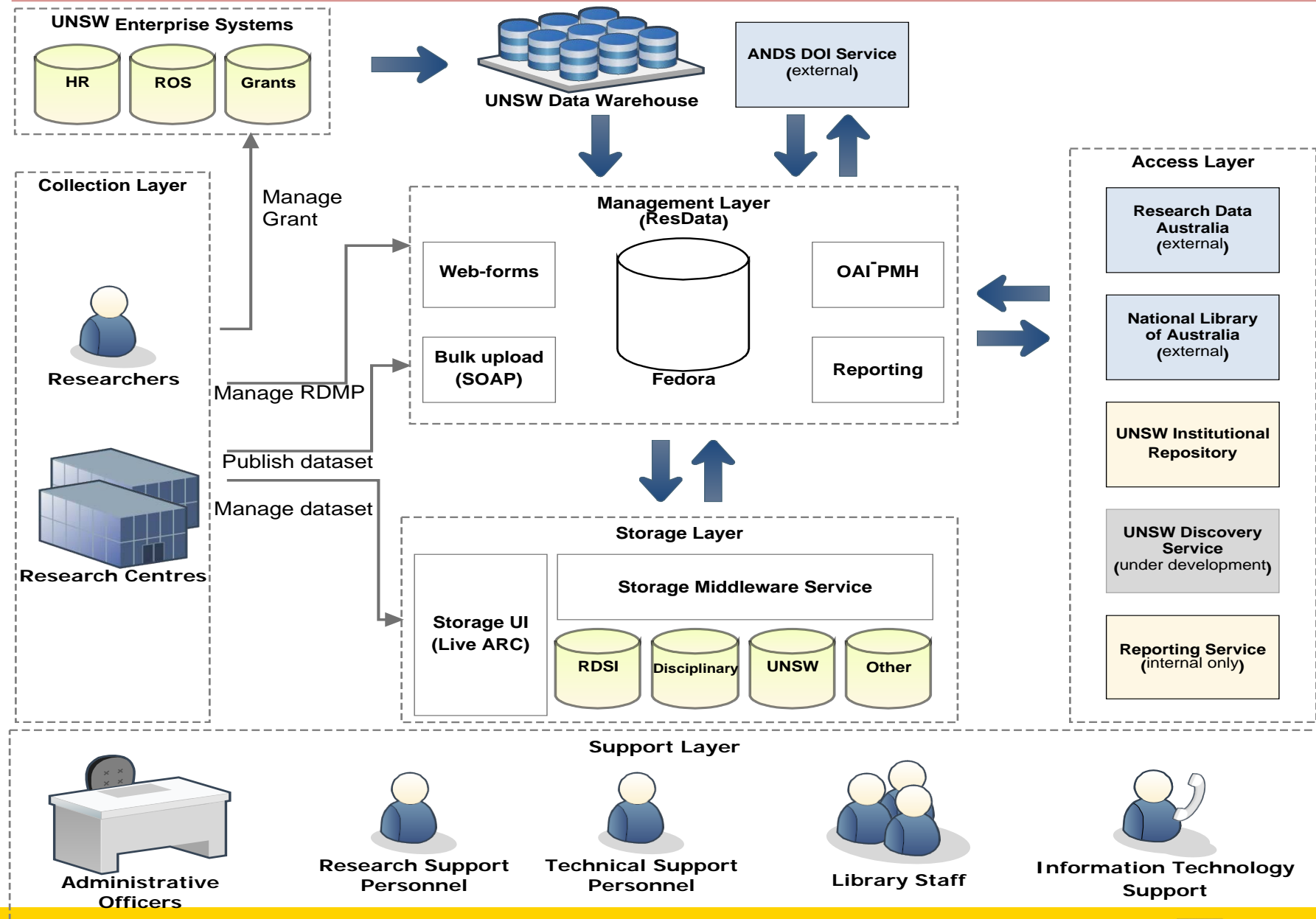


- ANDS Cite My Data Service API for requesting and assigning DOIs to dataset records
- DOI access resolves to landing page
- Landing page provides access to both the published record and other related resources

ResData Metadata Ontology



Division of Research
Policy & Governance





Sustainability

- Two levels of relationships
 - Research projects, outputs (data), and the associated personnel
 - Roles and responsibilities associated with the provision and sustainability of the service components
- Flexibility
 - Future requirements
 - Changing organisational structure and relationships



Conclusions and future work

- Higher degree research candidates
 - RDMP template
 - Automatic allocation of storage
- Research Data Storage Infrastructure (RDSI)



- Data Documentation Initiative metadata (DDI)
- UNSWorks preservation policy and procedures

ResData URL

<https://resdata.unsw.edu.au/pages/authenticate.faces>



Acknowledgment



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