Interoperability scenarios

December, 2018
INTEROPERABILITY SCENARIOS

To understand common interoperability hurdles and successes, the National Archives of Australia consulted with Government agencies on their experiences. From this consultation we chose four interoperability scenario hurdles that are designed to be used with the interoperability development phases resource (http://www.naa.gov.au/naaresources/images/giap/interoperability-development-phases-resource.pdf).

Use the scenarios as a guide to plan your own workflows with the skills and resources you have available. You can rearrange the order of the scenario steps; replace them with other actions; omit them or operate them in parallel.

Scenario 1 - Improve data integration to streamline business processes
Access your data more quickly using tools and technologies to streamline data access methods via data integration and handling.

Scenario 2 - Perform a data migration of legacy data to standardise compatible form
Migrate your old data located in legacy systems that hampers fast and efficient data analysis. Overcome this hurdle with an initial data assessment, followed by data migration.

Scenario 3 - Use standardised data exchange methods for both internal and external stakeholders
Meet your users’ needs by improving data exchange for your external clients with standardised exchange methods. User research will clarify their needs and help identify the tools and technologies that enable secure, standardised ‘self-serve’ data exchange.

Scenario 4 - Use consistent metadata to support publication and exchange of data
Find data quickly by using metadata standards to make information about data (its metadata) easier to find. This process includes metadata architecture, and uses tools and technologies to support good metadata management.

Related links
Hi, my name is Bill. I am a manager in a government agency and it takes longer than it should to have access to high quality data to inform decision making.

I have spoken to the leadership & information management team and we all recognise there is a need for more streamlined data integration and data handling.

...Bill starts by understanding the people that should be involved in the improvement.

...a gap analysis is undertaken to understand what work is required.

...Bill works with the team to design a plan & identify skills.

...potential solutions could include:

1. Metadata
2. Data Security & Privacy
3. Data Quality
4. Data Profiling
5. Data Discovery
6. Data Lineage/Collection
7. Current Data Architecture
8. Define Business Rules
9. Adheres to DTA Digital Service Standard
10. Data is validated on entry
11. More efficient data consumption
12. API's increasing efficiency of data sharing
13. Overall reducing manual requests & effort
14. Making the best use of existing data
15. Reducing time taken to find data
16. Potential solutions could include:
17. We now have streamlined business processes which enable availability of high quality data for sharing and decision making.

What we now have streamlined business processes which enable availability of high quality data for sharing and decision making.
Hi, my name is Sue. I am a manager in a government agency and we have a number of high value datasets that are located in legacy systems that are hampering ready and responsive data analysis.

I have spoken to the leadership & information management team and we all recognise there is a need to perform a data migration to an open format and make the data future proof.

Some people involved in this process may include:
- Project Sponsor
- Business & Data Analyst
- Data Custodian
- IT Developer
- Data Consumer

...Sue starts by understanding the people that should be involved in the improvement

...data & information governance standards are understood

...the team kicks-off a current state assessment

...this also includes conducting a data holdings audit

...and completing a data quality assessment

...future vision for an improved state is created

...a gap analysis is undertaken to understand what work is required

...Sue works with the team to design a plan & identify skills

...things to consider during a data migration include:
- Understanding the volume of data to be migrated
- Setting out requirements for improvements
- Understanding what an improved state looks like
- Identifying practical next steps
- Quality check points, & auditing should be occurring throughout data migration
- Consider running legacy systems in parallel until confident of new applications and data
- Continuous increasing data quality
- We now have legacy data available in an open standardised format with improved quality of data that can be easily integrated into new solutions

We now have legacy data available in an open standardised format with improved quality of data that can be easily integrated into new solutions

Using automation tools to discover data if not already catalogue

Quality of the data is determined

All data have a data quality rule applied to it

Understanding what an improved state looks like

Identifying practical next steps

We now have legacy data available in an open standardised format with improved quality of data that can be easily integrated into new solutions

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Hi, my name is Amal. I am a manager in a government agency, and our data consumers tell us that they spend a lot of time converting our data into their own data structures and data definitions.

I have spoken to the leadership and information management team and we all recognise there is a need to look into our data exchange methods to ensure they are standardised and easier to access.

Some people involved in this process may include:

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td>Security Specialist</td>
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<tr>
<td>Data Specialist</td>
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<tr>
<td>Data/Information Architect</td>
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<td>Subject Matter Expert</td>
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<td>Information Governance Manager</td>
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<td>Project Sponsor</td>
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<td>Business &amp; Data Analyst</td>
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<td>Data Custodian</td>
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<td>IT Developer</td>
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<td>Data Consumer</td>
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...Amal starts by understanding the people that should be involved in the improvement...

...this also includes determining data exchange standards & formats...

...future vision for an improved state is created...

...this also includes conducting user research to ensure data exchange services are aligned with internal/external users...

...a gap analysis is undertaken to understand what work is required...

Amal works with the team to design a plan & identify skills...

...some data exchange considerations include...

We now have a data exchange platform that is secure and enabled data customers to self-serve with data exchanged in a standardised format.
Use consistent metadata to support publication and exchange of data

Hi, my name is Bao. I am a manager in a government agency, and it is difficult and time consuming to find information about the data that we hold.

I have spoken to the leadership and information management team and we all recognise there is a need to standardise and enhance metadata creation, maintenance and management.

Some people involved in this process may include:
- Security Specialist
- Data Specialist
- IT Developer
- Data Consumer
- Project Sponsor
- Business & Data Analyst
- Data Custodian
- Subject Matter Expert
- Information Governance Manager

...data governance standards are understood

...the team kicks-off a current state assessment

...future vision for an improved state is created

...this also includes defining metadata architecture

...a gap analysis is undertaken to understand what work is required

...Bao works with the team to design a plan & identify skills

...some considerations for metadata improvement include:
- Metadat Architecture, Metadata Strategy
- Metadata, Data Security & Privacy
- Data Quality
- Data Lineage/Collection
- Data Discovery
- Data Stewardship

...creating metadata repository

We now have standardised, consistent metadata to support the publication and exchange of data