Transforming Data Acquisition

Statistical Business Transformation Program
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Data Acquisition Capability

- The ABS transformation program is a suite of projects to deliver enterprise wide capabilities.
- The Data Acquisition capability "supports the collection or acquisition of data via a range of secure data channels."
Main benefits

- Reduce costs
- New digital data channels
- Improved online service
- Reduce burden
- Better for ABS users and ABS staff
Transforming data acquisition

Current experience

- Paper, face-to-face and telephone collection
- Manual processing
- Red tape: Interactions repeated across agencies and collections
- User Experience: Inconvenient, time consuming and highly interactive
- High cost

Future benefits

- Paper
- Manual processing
- Automated, rules-based processes
- Easy and convenient
- Digital
- Lower Cost: Less manual handling and more shared platforms
- User Experience: Online, quick and convenient
- Red tape: Reduced work through fewer duplicated actions
Enhanced Digital Channels
Collection Operations

Provider Portal

Workload Management
Designing data acquisition instruments

**Instrument Design Tool**
- One design, many collection methods

**Machine to machine**
- More automated, digital data channels

**Smart e-forms**

**Computer Assisted Telephone Interviews (CATI)**

**Face-to-face**
- Less use of human interaction channels
How to begin?
The ABS is supporting the Common Statistical Production Architecture and all statistical services will need to comply with its concepts. As such:

• The ABS solution architecture is service oriented and modular.
• The Generic Statistical Business Process Model (GSBPM) is driving our reengineering conversations.
• All statistical services must utilise the ABS Information Architecture underpinned by the Generic Statistical Information Model when describing statistical business objects in their service contracts.
IMPORTANT NOTE: Artefacts produced in one phase can be extended/refined/detailed in later phases.
The Data Acquisition Business Model is a functional model of Data Acquisition in ABS.

The Standard Services Model was created in conjunction with Statistics New Zealand.

These models are the Business layer models defining everything the project requires.
Mapping functions to the Capability
Seeking a commercial product

- This work all led to a set of requirements for the three streams.
- The ABS released a Request for Tender in December 2015.
- While the evaluation, work continued!
Business Processes

• The ABS has a national implementation of GSBPM called the Statistical Process Activity Model (SPAM).
• Extensive work was undertaken to map “as-is” and “to-be” business process for the ABS.
• This work is ongoing
Collection Instrument Design
(1.1.1.1 Instrument Creation)

**INPUTS**
- Proposed modes of collection
- Underlying concepts and collection objectives
- Target response burden
- Instrument quality expectations
- Test plan & cases

**Outputs**
- Approved collection instrument variants
- Supporting materials
- Derivations & edits to be applied
- Estimated instrument completion time

**Metadata & Paradata Requirements**
- Standard reusable instrument questions, modules & supporting material
- Editing, coding and derivation rules
- Test status
- Design Standards

**Roles**
- Instrument designer
- Instrument tester
- Testing participants
- Approver

**Process**
- Select existing questions & modules, create new questions or tailor variants
- Design and build instrument layout, sequencing & editing rules
- Test collection instrument in all channel variants & measure response burden
- Approve collection instrument package

**Benefit of automation**
- 〇 〇 〇 〇
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**Ease of Implementation**
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**Business Services**
- Instrument module discovery
- Instrument module retrieval
- Design Questions
- Cognitive Testing
- Define Collection Instruments
- Design Metadata
- Design Layouts
- Define supporting materials
- Test instrument accuracy & behaviour
- Instrument integration
- Finalise Instruments
- Build instrument
• The ABS has an implementation of GSIM called the ABS Information Model. This model underlies the Metadata Registry Repository (MRR).

• All new systems must interact with the MRR.
The Functional User Stories were examined to understand the information inputs and outputs.

A logical information model was derived and aligned with the ABS Information Model.

A number of gaps were found in relation to Collection Operations.
- The ABS is now working with a vendor.

- The work done by ABS to align with CSPA was given to the vendor during initial design phase and is being discussed in design workshops.
Data Acquisition solution overview
Where we are now

**Analysis**
- Standard service model
- Future operating model

**Design**
- Smart e-forms
- Enhanced Digital Channels
- Instrument Design Tool
- Solution Design

**Develop**
- Build
- Test
- Integrate

**Onboarding**
- Deployment
- Training
- Pilot tests
- Dress rehearsals

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Thanks!

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