

NSW Registry of Births, Deaths & Marriages

Data Quality Enhancement, Migration and Single View of Client

Key Details

150 years of historical data

65+ Million Records

Over 100 Separate Data Sources

Significant Data Quality Challenges

Person Data Recorded Across Numerous Life Events

Multiple Versions and Variations Of Data

No Separation of Multi-Component Data

The NSW Registry of Births, Death & Marriages was formed in 1856 to accurately and securely register the life events of the people of New South Wales.

The Register utilised a text-file based system that contained 65 million records spanning 150 years of historical information.

With discreet entries for categorised life events such as Births, Deaths, Marriages, Adoptions, Change of Name and Change of Sex, the Register was “event-centric”, making it difficult to derive a consolidated view of records for each citizen.

Additional complexities were imposed by the legacy data management model. This comprised over 100 separate data sources, each representing a 5-year block of records for a particular life event (e.g., Births, Deaths etc.).

In line with its modernisation program, the Registry established a project to implement a new Register designed to better serve evolving community needs.

The new Register would operate on a “client-centric” model that could directly link all the life events for each citizen, in addition to identifying all the participants in each event, e.g., siblings, parents, marriage celebrants, doctors etc.

Datalynx was engaged to undertake the transformation from the event-based to the person-centric model and prepare all historical data for migration to the new Registry.

The scope of the project included comprehensive data analysis (profiling), data cleansing / quality enhancement, as well as standardisation and transformation.

The legacy system’s text-file data repository did not apply many of the checks and constraints available in more modern RDBMS platforms. Consequently, a range of challenges needed to be addressed, including:

- Discretionary population of data in certain fields resulting in many blank values
- Multi-component data such as names and addresses not stored as separate attributes.
- Frequent use of special characters including commas, apostrophes and brackets.
- Single fields containing multiple values, such as versions of a person’s surname (e.g., current name, maiden name, former name, aka, etc.)
- Multiple fields for a date, without overall date validation.
- Replication of person details across numerous life events.

Key Details

34 Billion Profiling Transactions

Up to 1000 Rule Validations Per Record

300 Million Data Exceptions Identified and Tracked

Over 12 Billion Data Cleansing Transactions

99.994% Issues Remediated

Datalynx successfully delivered the outcomes required by Birth Deaths and Marriages on-time and within-budget

Over the course of the 18 month project Datalynx delivered:

- Data that was cleansed, standardised and restructured to a client-centric data model
- Person master data linked to life event transactions.
- Person records that were de-duplicated with address data standardised and verified.
- Comprehensive verification and reconciliation reporting, providing assurance to the Registry's external auditors.

In achieving this outcome, Datalynx utilised the DMS platform to:

- Undertake 34 billion data profiling transactions, running several hundred validation tests per record,
- Identify and report 300 million data exceptions, tracking them through to resolution
- Undertake multiple data cleansing cycles, processing 12 billion data cleansing transactions.
- Remediate and/or account for 99.994% of the exceptions, with the remainder being classified as not warranting further effort.

Datalynx DMS Platform



DMS is the world's most versatile data management solutions platform, combining all the capabilities required to successfully undertake the most complex data initiatives via one comprehensive, highly-integrated product suite.

Offering high productivity and efficiency, the DMS incorporates a broad range of productised and highly integrated capabilities that combine to deliver sophisticated business solutions.

This single platform is a unique "one-stop" technology that replaces the numerous disparate systems offered by some vendors. Migrate to the Cloud, rapidly deploy a Data Warehouse, modernise legacy data platforms, create a single source of truth for customer data and more..