## DOCUMENTATION AND ENDORSEMENT

### Document history

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### Approvals

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<tr>
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### Document custodian

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</tr>
</tbody>
</table>
# CONTENTS

1. PURPOSE ................................................................................................................. 4

2. INTRODUCTION ....................................................................................................... 4

2.1 Information Management Framework ..................................................................... 4

2.2 About the Standard ................................................................................................. 4

3. IMPLEMENTATION ................................................................................................. 5

4. SCOPE ...................................................................................................................... 5

5. PRINCIPLES ............................................................................................................. 6

5.1. Integrated service delivery model......................................................................... 6

5.2. Interoperability and sharing ................................................................................. 6

5.3. Common vocabulary ......................................................................................... 7

5.4. Phased transition .................................................................................................. 7

6. STANDARDS ............................................................................................................ 8

6.1. Data interoperability ............................................................................................ 8

6.2. Data integration .................................................................................................... 8

6.3. Data quality ......................................................................................................... 8

6.4. Metadata ............................................................................................................ 9

7. RELATED DOCUMENTS ......................................................................................... 9

8. REVIEW .................................................................................................................. 9

9. CONTACT .............................................................................................................. 9
1. PURPOSE

This standard is issued by the NSW ICT Board in accordance with the *NSW Government ICT Strategy*. The purpose of this document is to establish a standard approach to information architecture, for use across government.

2. INTRODUCTION

2.1 Information Management Framework

A key initiative of the *NSW Government ICT Strategy* is the development of an Information Management Framework to support the way government administers and uses data and information.

The Framework is a set of standards, policies, guidelines and procedures which are implemented either manually or, where possible, automated through technology. This will allow data and information to be managed in a secure, structured and consistent manner.

It will ensure that data and information can be appropriately shared or re-used by agencies, individual public sector staff, the community or industry for better services, improved performance management and a more productive public sector.

This standard forms part of the Information Management Framework.

2.2 About the Standard

The ICT Strategy identifies the need to establish a standard information architecture approach for use across government. The architecture comprises data standards which provide a common language enabling agencies to appropriately search, share or compare data managed across diverse systems. It will be supported by relevant technical standards.

This document describes an intent and methodology. It does not specify a prescribed architecture.

Benefits

Benefits of standard approach to information architecture include:

- **Enhanced interoperability**: disparate datasets can be brought together and integrated into a single view for analysis or presentation;
- **Enhanced accessibility to services**: enable customers to interact with multiple agencies through a single interface, or build a holistic view of the services they receive from government;
- **Improved decision making**: identify trends or relationships, enable the development of evidence-based policy, support planning and targeted service delivery;
- **Reduction in administrative costs**: streamline reporting, reduce duplication through appropriate sharing and re-use of information assets.
3. IMPLEMENTATION

NSW Government has adopted a business-driven approach to standards for data and information, based on the following five criteria:

Standards are:

- **Aligned** – with the principles and outcomes of the IM Framework;
- **Relevant** – to the specific business needs, objectives and operating environment of NSW Government agencies, so that their business value is evident;
- **Proven** – established or endorsed by the industry sector or professional community;
- **Aspirational** – supporting phased implementation or continuous improvement;
- **Enterprise-wide** – support for developing people, processes and technology.

Standards are incorporated into the Framework where existing or potential business needs and opportunities are recognised.

This standard will be implemented by agencies according to their specific business needs and operating environment. Standardisation will help to maximise the use and value of information and minimise risk.

Agencies are expected to refer to the Framework, and use standards that are relevant to a specific project, process or corporate objective.

Further information about NSW Government approach to information management and standards can be found on the website of the NSW Government ICT Strategy at:


4. SCOPE

This standard is for use by all NSW Government Departments, Statutory Bodies and Shared Service Providers. It does not apply to State Owned Corporations (SOCs) in accordance with Premier’s Memorandum M1999-19 Applicability of Memoranda and Corporations, although SOCs are encouraged to adopt this standard.

Other stakeholders are encouraged to adopt this standard, including:

- Public Trading Entities (PTEs);
- Entities fully funded by the NSW Government; and
- Local Government Authorities.
5. PRINCIPLES

5.1. Integrated service delivery model

NSW 2021 and the ICT Strategy outline a vision of customer service and public engagement, with two main platforms providing central access to government services and information.

Service NSW and OpenGov (linked to the Digital State Archive) systems comprise a platform ‘layer’ in the whole of government enterprise, facilitating interaction between government agencies and individual or organisational customers.

This layer enables data integration and exchange to support service delivery, policy development and open government. It facilitates appropriate aggregation, analysis or sharing of data between agencies, and the standardised presentation of cross-agency data to customers.

The diagram below provides a simple model of the new service delivery environment:

![Diagram](image)

**Figure 1 Simple model of the new service delivery environment**

5.2. Interoperability and sharing

Platforms for integrated service delivery and information sharing are the focus for information architecture.

Data standards are implemented through a “brokerage layer” which provides central access to government services and information. This layer facilitates appropriate aggregation, analysis or sharing of data across diverse systems, and the standardised presentation of cross-agency data to customers – with controlled impact on resource implications.

Legacy systems can be mapped to the standards established in this layer.
Standards can be incorporated into the specification of requirements when designing or purchasing systems, or moving to new models of ICT sourcing. This allows for a phased implementation, based on business objectives.

Agencies will work together, sharing expertise and guidance to achieve system level interoperability.

Data custodianship arrangements will help determine appropriate leadership for a given project. For example: Roads and Maritime Services would provide leadership on the application of standards for services or processes related to driver’s licensing; Service NSW would provide leadership on the application of standards for transactional services or payment processes. Refer to section 4.2 of the Data Custodianship Policy for more detail.

### 5.3. Common vocabulary

This approach aims to ensure data are consistently defined, understood and applied. Common definitions will be made available to all participating agencies.

Key entities, attributes and relationships should be maintained to facilitate transactional services, information sharing and reduce the integration effort.

Metadata should be used extensively to help organise and standardise data, to enable search, discovery and value-added processing.

### 5.4. Phased transition

The approach also aims to support agencies in the transition to customer-centric processes and data-centric systems.

The IM Framework will provide guidance addressing legacy information and data, mapping to the integration and exchange layer, and incorporating information management controls into the design of new systems or services.

It will help agencies evaluate requirements for information security, privacy and accessibility; and to develop scalable approaches to data storage, retention and disposal.

These components will enable agencies to on-board with Service NSW and take advantage of other mechanisms for improving customer service in the digital environment.

Taking a business-driven approach will encourage the adoption of standards, and the development of sustainable systems and processes, based on demonstrable benefits.

Guidance materials will also link with the ICT investment principles, enabling agencies to justify investments with appropriate consideration for the benefits of linking to the integration and exchange layer.
6. STANDARDS

The use of common data standards supports interoperability and exchange across the broad spectrum of information captured by NSW Government agencies.

The following section describes the types of standards within the IM Framework, which will support the approach to information architecture.

Standards for verifiable location data and minimum customer data have been identified as a priority, to support the transition to transactional services provided by Service NSW.

Note that technical standards are outside the scope of this document.

6.1. Data interoperability

Data interoperability is the ability to correctly interpret data across different systems or organisational boundaries. Interoperability standards facilitate a common understanding of the data meaning and usage between systems and across agencies – providing clarity in plain English or familiar business language.

As outlined in the NSW Government Data and Information Custodianship Policy, custodians of core value data or information will contribute to the definition of standards that support interoperability.

In particular, this will include agreed data definitions for fields or elements that are commonly exchanged and used across multiple agencies. It may also involve modelling of key entities, relationships and dependencies, where this supports data sharing and shared service delivery.

6.2. Data integration

Data integration involves combining data residing in different sources and providing users with a unified view of these data. Integration standards are critical for the brokerage layer that will facilitate sharing of data in a standardised format across diverse systems.

The IM Framework will incorporate integration standards that allow agencies to develop and deploy effective data and business services that are discoverable and understandable. The standards will guide the development of services consistent with the Service NSW data model in a manner that satisfies sensitivity and security requirements.

6.3. Data quality

Data quality standards enable potential users to establish the relevance and fitness-for-purpose of data and information, for publication, exchange, re-use or re-purposing.

The IM Framework will incorporate standards for assessing and reporting on the quality of government data and information – including reliability, accuracy, currency and consistency.
6.4. Metadata

Shared information environments rely on clear, consistent metadata structures that enable information organisation, management and searching across diverse systems. This may include agreed categories, classification schemes or taxonomies.

The IM Framework will reference a range of interoperable metadata standards for use across NSW Government according to business process or sector requirements.

7. RELATED DOCUMENTS

This document should be read in conjunction with the following related documents:

- NSW 2021
- NSW Government ICT Strategy
- NSW Government Information Management: A common approach
- NSW Government Standard for Customer Reference Data
- NSW Government Standard for Spatially Enabling Information

8. REVIEW

This standard will be maintained by the ICT Leadership Group. The standard is subject to review at least every two years, or as appropriate.

9. CONTACT

For assistance with any aspect of this document, please contact:

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