Information Management Framework

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For enquiries or feedback, email:
IMexperts@finance.nsw.gov.au

Information Management Framework

The Information Management Framework (the Framework) outlines a shared direction for information management in the NSW Government.

The purpose of the Framework is to:

- drive information coordination, consistency and maturity across the NSW public sector

- highlight the aspects of information management that contribute to strong governance, strategic business outcomes and improved services in the digital environment

- help government to strategically plan and manage information as an asset and enabler of digital transformation and as a key component of quality service delivery for the community

- help coordinate the management of all forms of government information

- consolidate and share knowledge

- foster public confidence in government information management, by promoting the components of effective information management practice in the NSW public sector

- build and promote information maturity and capacity in the NSW public sector

- drive information access and sharing across the sector.

The Framework:

- applies to all forms of information, data and records created and managed by the NSW public sector

- can be used by agencies to benchmark their current information management practices and to identify aspects of information management that require capability improvement

- encourages whole of government maturity and consistency in information management

- is a tool to support the integration of coordinated information management into broad business and project management practices.

👁 Vision

In NSW Government, information management:

- drives the digital transformation of government and improves the delivery of quality services for the community
- contributes to strong analysis, planning, decision making, evaluation and accountability
- enables information to be managed securely as a valued asset, now and into the future
- allows the sharing of trusted information with government and with the community.

🧠 Principles

NSW Government information is:

- business enabling, aligned to business needs and customer outcomes
- secure, valued and managed as an asset
- trustworthy, used and reused with confidence
- high quality and spatially enabled
- managed across the full lifecycle, protected from unauthorised use and inappropriate deletion
- available and open to the community and government.

📋 Requirements

Information management takes account of:

- legislation, regulation, policies, standards and guidelines
- risk and value
- lifecycle management requirements
- customer needs
- business alignment
- operating models.

⛓ Governance

Effective performance of NSW Government information management is driven by:

- strategy and planning
- performance management, monitoring, analysis and metrics
- leadership, sponsorship and investment
- roles, responsibilities and structure
- quality assurance
- security, risk, audit and compliance assessments.

🔧 Capabilities

Capabilities are delivered through people, processes and technology. Information becomes a quality, available, trusted, protected, useful and managed asset through:

- information planning and design
- information access, security, privacy and use management
- knowledge management
- business intelligence and analytics
- data management
- continuity management.

Definitions and descriptions

Vision

**In NSW Government,
information management:**

- drives the digital transformation of government and improves the delivery of quality services for the community

- contributes to strong analysis, planning, decision making, evaluation and accountability

- enables information to be managed securely as a valued asset, now and into the future

- allows the sharing of trusted information with government and with the community.

Vision

Vision outlines the key purpose of information management.

Principles

NSW Government information is:

- business enabling, aligned to business needs and customer outcomes

- secure, valued and managed as an asset

- trustworthy, used and reused with confidence

- high quality and spatially enabled

- managed across the full lifecycle, protected from unauthorised use and inappropriate deletion

- available and open to the community and government.

Principles

The Principles outline the core characteristics of information in NSW Government.

Business enabling, aligned to business needs and customer outcomes

Information is designed and managed so that it directly supports organisational, business and customer requirements. Information is integral to the government's operations and effectiveness.

Secure, valued and managed as an asset

Information is recognised as a core component of government services and operations, and supported and maintained as a secure, long-term business asset wherever required.

Trustworthy, used and reused with confidence

Information is accurate, authentic and trusted, allowing its ongoing use and reuse by government and the community.

High quality and spatially enabled

Quality information is of value to client, business and strategic objectives, and where relevant, spatial enablement allows for improved service planning and delivery, and business insights.

Managed across the full lifecycle, protected from unauthorised use and inappropriate deletion

Information is appropriately managed from procurement or service design, through creation and to final disposition. This management includes the protection of personal, health and sensitive information, and prevention of deletion until enabled by legal destruction authorisation.

Available and open to the community and government

Information is publicly accessible and available in accordance with proactive release and open data principles, or shared within and between organisations to improve services, planning and innovation.

Requirements

Information management takes account of:

- legislation, regulation, policies, standards and guidelines

- risk and value

- lifecycle management requirements

- customer needs

- business alignment

- operating models.

Requirements

The Requirements outline the key rules and objectives that information management must adhere to.

Legislation, regulation, policies, standards and guidelines

Good information management is a legal requirement in NSW Government. Whole of government information management requirements are outlined in the *State Records Act 1998, Government Information (Public Access) Act 2009, Privacy and Personal Information Protection Act 1998, Health Records and Information Privacy Act 2002* and the *Data Sharing (Government Sector) Act 2015*.

Additional legal or regulatory requirements apply in specific agency or business domains and all organisations should identify the specific requirements that apply to their environment.

Requirements for information management are also outlined in policies, standards and guidelines applying to the organisation. These can focus on some or all information capabilities and often aim to increase and protect the business value of information.

Risk and value

Information management should not be a single program rolled out in a uniform or monolithic way across an organisation. Because of the ubiquity of information in organisations today, every organisation needs to prioritise its information management investment and activity based on risk and value.

High risk and high value business activities or environments need to be supported by strong information management practice. Low risk and low value activities or environments need to be supported by leaner forms of information management.

Lifecycle management requirements

Often articulated in legislation or policy, these are the requirements and processes needed to support the use and management of information as an asset throughout its lifespan.

Lifecycle management involves understanding how information needs to be created, managed, used and deleted. Lifecycle management rules aim to reduce inefficiencies and ensure the maintenance and protection of information that has long term value to the organisation, the community or the state.

Customer needs

Information management needs to consider client, stakeholder or community requirements. This is necessary to produce and make available information assets that meet customer needs and that are used and managed in accordance with community expectations.

Business alignment

Aligning with business enables information to be an asset that supports and improves organisational outcomes. Business alignment drives information use, reuse and insights, and ensures information management takes account of business direction, customer needs, regulatory requirements and market forces.

Operating models

Information management is not a one-size-fits-all approach; it needs to be aligned to business needs, tools and behaviours in different areas of the organisation.

Information management needs to reflect corporate operating models and their respective requirements, to enable and improve business-led and technology appropriate information management in different areas of the organisation.

Governance

Effective performance of NSW Government information management is driven by:

- strategy and planning
- performance management, monitoring, analysis and metrics
- leadership, sponsorship and investment
- roles, responsibilities and structures
- quality assurance
- security, risk, audit and compliance assessments.

Governance

Governance addresses how the NSW Government's information is managed to support decision making, policy development and service delivery.

Strategy and planning

Information management needs to be informed by strategic direction and planning, to ensure information remains a valued, managed and business-aligned strategic asset.

Performance management, monitoring, analysis and metrics

All aspects of information management require ongoing monitoring, analysis and measurement to ensure that:

- the organisation's information management vision and strategy are being achieved
- benefits are being returned to the organisation
- required service improvements are identified
- risks are mitigated
- insights can be leveraged
- ongoing business improvements can be achieved.

Leadership, sponsorship and investment

Leadership, advocacy and funding are defined and allocated to enable delivery of information management objectives and outcomes.

Roles, responsibilities and structures

Roles, responsibilities and business structures are defined and designed to support key agency information management accountabilities, risks, deliverables and performance.

Quality assurance

Ongoing information management quality assurance is necessary to ensure information is trustworthy and fit for purpose.

Quality assurance can require ongoing or targeted assessment of information accuracy, completeness, timeliness, relevance, transparency and consistency.

Security, risk, audit and compliance assessments

These assessments inform the ongoing effective performance of information management. Security and risk assessments identify, evaluate and mitigate the risks around information and manage threats to its integrity, security, availability, longevity and useability in different environments and service offerings.

Internal or external audits assess the integrity and performance of specific information management processes, services or environments. Compliance assessments monitor adherence to mandatory legislative or other obligations, including requirements for information creation and retention, information access, or privacy protections for personal and health information.

Capabilities

The Capabilities outline the key elements of information management in NSW Government.

Capabilities

Capabilities are delivered through people, processes and technology. Information becomes a quality, available, trusted, protected, useful and managed asset through:

Information planning and design

- Information needs assessment
- Information risk assessment
- Information architecture
- Data modelling and design
- Information lifecycle planning
- Information asset registration
- Evidence and accountability management
- Information system and service management

Information access, security, privacy and use management

- Cyber security
- Information access
- Privacy management
- Data opening and public release
- Data sharing
- Information classification

Data management

- Reference and master data management
- Metadata management
- Data quality
- Content management
- Data storage

Continuity management

- Information creation
- Retention and disposal
- Storage planning and management
- Migration, transition and decommissioning
- Digital continuity

Business intelligence and analytics

- Data analytics
- Business intelligence
- Big data, streaming data and internet of things
- Artificial intelligence, machine learning and predictive analytics

- Geospatial and location intelligence
- Reporting and insight management

Knowledge management

- Digital asset management
- Enterprise search and workflow
- Agency and cluster collaboration
- Community collaboration

Note: Significant interdependencies exist between all capabilities. A single business initiative will likely need to be informed by all capability areas.

Records management has not been called out as a specific capability because its functions of information planning, assessment, creation, control, use, retention and destruction apply to all capability areas.

Information planning and design

Information needs to be consciously planned and designed to meet business appropriate requirements and governance needs. To achieve these broad aims, information planning and design needs to encompass the following.

Information needs assessment	• Assessment of the information that the organisation needs to design, make and keep • Identification of where information requirements need to be built into process, system, service or contract design
Information risk assessment	• Identification of where risks to information exist in corporate environments, processes, capabilities or services • Identification of policy and compliance risks • Implementation of plans to mitigate these risks
Information architecture	• Assessment of the organisational architecture needed to support information creation, use, governance and management • Alignment of information management needs to enterprise architecture and future conceptual architecture planning
Data modelling and design	• Assessment, design and development of the data required to support business operations
Information lifecycle planning	• Identification of the requirements and processes needed to support the use and management of information as an asset throughout its lifespan • Alignment of systems, services, processes, capabilities and requirements to support information creation, management, use and deletion
Information asset registration	• Identification and documentation of core information assets and systems
Evidence and accountability management	• Assessment of organisational needs for evidence and accountability • Planning and assurance exercises to ensure information required to support evidence and accountability needs is appropriate, fit for purpose, and kept for as long as required
Information system and service management	• Planning and assurance activities to ensure systems and service offerings remain appropriate to business needs • Management of the transition of information out of systems and services and into new business appropriate environments when required

Information access, security, privacy and use management

Information access, security, privacy and use management ensure that information is used appropriately and protected where required. Information access, security, privacy and use management encompasses the following.

Cyber security	• Identification, risk assessment and management of high value information systems and assets • Development of governance frameworks to support strong asset management and cyber security • Definition of the controls needed to protect high value information assets • Development and implementation of relevant security by design approaches
Information access	• Support and resourcing for public information access requirements, including proactive and managed public release of information • Arrangements to ensure access to information is controlled, monitored and appropriate to risk and business requirements • Application of processes to maintain currency and appropriateness of access and restriction arrangements, including during staff onboarding, offboarding or movement through organisations • Development of monitoring processes for information access arrangements
Privacy management	• Development and implementation of privacy by design approaches to support compliant and effective information design, use and management • Adoption of processes and practices to support the protection, control and management of personal information
Data opening and public release	• Processes to ensure data is made available for public use and reuse • Development of governance and control processes to ensure personal and sensitive information is protected in open data arrangements • Community and business liaison to ensure information is released that meets current and future community needs and expectations
Data sharing	• Promotion of data sharing data within government, to drive service improvement and outcome delivery • Development of tools, processes, frameworks and arrangements to facilitate data sharing • Development of data integration and interoperability approaches • Governance and monitoring of data sharing arrangements
Information classification	• Identification, organisation and classification of information and information systems to enable their appropriate use and protection

Data management

Plans, programs and practices that control, protect, deliver and enhance the value and management of data assets. Data management encompasses the following.

Reference and master data management	• Definition and management of the core data values and the critical data assets used across an organisation
Metadata management	• Establishment of policies, rules and practices to ensure metadata definition, access, integration, linking, sharing, maintenance and analysis
Data quality	• Activities to assess and improve the quality of organisational data
Content management	• Tracking and management of information content to enable its appropriate definition, management, use and reuse
Data storage	• Planning, management and coordination of data storage environments

Continuity management

Processes associated with ensuring the creation, maintenance and disposal of information. Continuity management encompasses the following.

Information creation	• Processes for ensuring appropriate information is made as required to support operational, strategic or analytic requirements and client needs
Retention and disposal	• Processes to ensure information is kept or disposed of in accordance with legal needs and business requirements
Storage planning and management	• Planning to ensure information storage environments are appropriate and enable information continuity
Migration, transition and decommissioning	• Processes to ensure that information of long term value is migrated or transitioned through system or service changes to new environments, or appropriately assessed in decommissioning arrangements
Digital continuity	• Processes to ensure the preservation and maintenance of key information and data assets

Business intelligence and analytics

The application of tools and techniques to an organisation's information to improve decision making. Business intelligence and analytics encompasses the following.

Data analytics	• Activities involving the definition, collection and assessment of data to develop insights, strategic directions and business improvements
Business intelligence	• Processes for analysing information to optimise business decisions and performance
Big data, streaming data and internet of things	• Design, management, storage and utilisation of the data generated from the network of devices and sensors that connect and exchange data, to generate business efficiencies and intelligence
Artificial intelligence, machine learning and predictive analytics	• Design, management and implementation of processes to enable machines to learn from experience, through processing large amounts of data and recognising patterns in the data, to automate activities or to make predictions about the future
Geospatial and location intelligence	• Design, management and implementation of processes to use location information to derive meaningful business insights that improve service delivery and planning
Reporting and insight management	• Processes for ensuring that the insights generated through business intelligence and analytics activities are retained, applied and fed back into business and quality improvement activities

Knowledge management

The management of activities and processes for leveraging knowledge to enhance innovation. Knowledge management encompasses the following.

Digital asset management	• The organisation and management of digital information to enable its controlled and managed reuse
Enterprise search and workflow	• The practice of making content from multiple environments available for coordinated searching and access
Agency and cluster collaboration	• Processes for building and sourcing knowledge from inter agency and cross government collaborations
Community collaboration	• Mechanisms for building and sourcing knowledge through collaboration with the community, industry and research sectors