Data Governance and Management Office Establishment Guidelines

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1	All units of the State's Administrative Apparatus.
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1.0 Terms and Definitions

Terms	Definitions
Authoritative data records	Data records that serve as a single source of truth for the master data within an entity.
Business Glossary	A business glossary is an entity's system of record for business terms related to data. The purpose of a business glossary is to document and store an entity's business terminology, its definitions, synonyms, metrics, business rules, the business data steward responsible for the term etc.
Critical Data Elements	Data elements that are critical to an entity's operations from a regulatory, reputational or financial perspective. Examples include PII (Personal Identifiable Information), Customer data, employee identification number, financial transaction amount etc.
Data Dictionary	A data dictionary is a set of information describing the contents, format, and structure of a database and the relationship between its elements, used to control access and changes to the database (e.g., data types, data length, details of structure, security restrictions etc.).
Data Monetization	Refers to the practice of generating revenue or optimizing operational costs by leveraging data to create tangible economic benefits for an entity.
Data Products	A product or a service offering that is created leveraging the data an entity possesses to deliver value to the consumers in terms of addressing their needs or business challenges while acting as a revenue stream to the producing entity.
Enabling Stakeholders	Enabling stakeholders within an entity refer to specialized departments that provide essential services, support, or domain expertise to the data governance and management office.
KPI (Key Performance Indicator)	A Key Performance Indicator (KPI) is a metric utilized to evaluate the effectiveness or progress of executing a particular task, project, or organizational objective. KPIs provide a basis for strategic and operational improvements and create an analytical foundation for informed decision-making.
Master Data	Data that provides context for business activities. It includes the details of the data objects involved in business transactions such as customers, products, employees, vendors, citizens etc.
Open Data assets	Information that is freely accessible without the need for public requests and without restrictions on its use or distribution, typically provided in machine-readable formats. It fosters transparency, innovation, and collaboration by enabling individuals and entities to access, analyze, and utilize data for various purposes.
Reference Data	Data utilized solely to establish connections between information in a database to the information beyond the boundaries of an entity. For e.g., country codes, ISD codes, state codes etc.
Users	Any individual or an entity that consumes data is termed as a user.

2.0

Introduction

2.0 Introduction

The Sultanate of Oman, aligning to the objectives of vision 2040, has planned several strategic digital transformation programs for driving economic growth, innovation, and public welfare.

As a significant step in this direction the National Data Strategy was published by the National Center for Statistical Information (NCSI) via resolution no. 2022/103. Article (40) of the National Data Strategy entrusts the Ministry of Transport, Communications, and Information Technology (MTCIT) with the following responsibilities:

- 'Preparing policies and standards for data management and governance and following up on the commitment of units of the state's administrative apparatus and other public legal persons to these policies.'
- 'Preparing the necessary guidelines and guides to support the application of policies and standards.'
- 'Preparing and presenting awareness workshops for units of the state's administrative apparatus and other public legal persons.'
- 'Adopting initiatives based on technical data and coordination between beneficiaries from the government and private sectors.'
- 'Preparing and supervising the implementation of open data programs.'

Further for MTCIT to undertake the assigned responsibilities by the National Data Strategy and to resolve the challenges faced earlier by the government sector in complying with multiple existing data management laws/policies/frameworks and guidelines, the Ministry has developed the National Data Governance Framework to empower the implementation of the National Data Strategy and provide a unified, structured, and comprehensive approach towards managing and regulating data.

The diagram below showcases the sequence of events leading to the development of the framework:
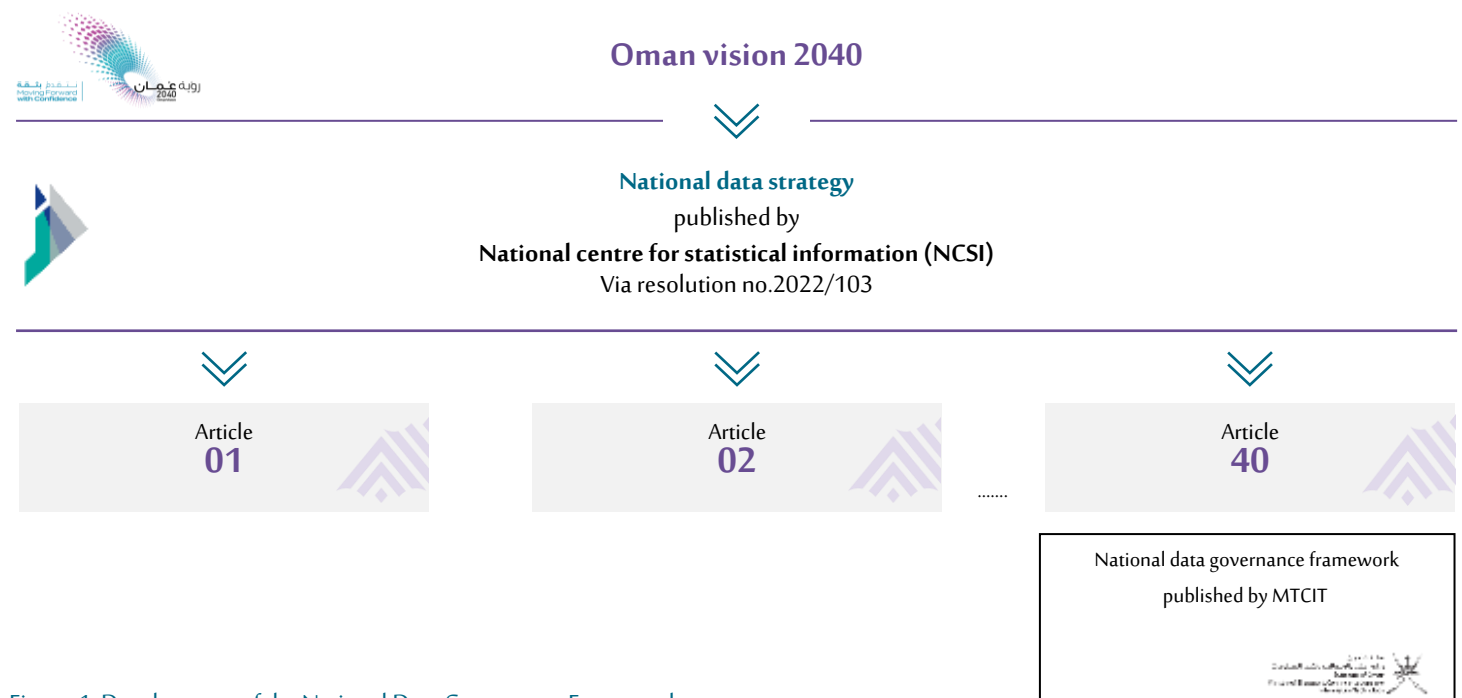

Figure-1: Development of the National Data Governance Framework

With this context, MTCIT has developed the Data Governance and Management Office Establishment Guidelines outlining the governance structure, mandate, roles, and responsibilities necessary to facilitate effective execution of the data governance and management practices.

The Data Governance and Management Office Establishment Guidelines document is a part of the National Data Governance Framework and is pivotal towards realizing MTCIT's overarching data governance vision of establishing data as a foundation for the Sultanate's economic growth objectives.

2.1 National Data Governance Vision and Mission

Data as a key enabler for decision-making and leading economic development in the Sultanate of Oman

Vision   **Mission**

Activate an effective national data governance framework that fosters collaboration between data owners and end users, through setting clear directions with the required level of policies for managing and governing data, adopting best practices, and ensuring continuous compliance, in order to reposition data as a driving force for the national economy.

Figure-2: National Data Governance Vision and Mission

2.2 Data Governance Framework Overview

The National Data Governance framework outlines a structured approach to help entities manage their data effectively. It involves defining policies, processes, and responsibilities to ensure that data is managed in a consistent manner throughout the data lifecycle. The framework comprises of **three components:**

National Data Governance Framework

01 **02** **03**

National data governance and management polices

Data governance and management office establishment guidelines

National data governance and management compliance assessment model

Figure-3: National Data Governance Framework Ecosystem

- **National Data Governance and Management Policies** – The policies outline the necessary requirements across 13 out of the 14 data governance and management domains to establish a robust data governance practice within the government entities. The Document and Content Management domain will be covered by the existing policies/laws developed for the sultanate.

- **Data Governance and Management Office Establishment Guidelines** – The guidelines provide the necessary elements to support the government entities for establishing their Data Governance and Management Office including the mandate, services and processes, organization structure, roles, and responsibilities, positioning within the entity and governance model.

- **National Data Governance and Management Compliance Assessment Model** - The model outlines the compliance assessment methodology, the implementation priorities, and the assessment criteria for enabling the government entities to comply with the national data governance and management policies.

This document should be read in conjunction with the National Data Governance and Management Policies and National Data Governance and Management Compliance Assessment Model for a comprehensive view of the National Data Governance Framework requirements.

2.3 Data Governance Principles

The following principles have been formulated in alignment with Oman's vision for data governance and shall guide the Sultanate's data governance and management practices.

Data is a national asset
Develop practices that enable realization of the inherent value of data as a national asset to drive innovation and unlock economic growth through data integrity, monetization, transparency and accountability.

01

A data-driven culture is encouraged
Establish processes and develop skills required for entities to utilize their data, derive meaningful insights and leverage technology to improve their decision making and operational efficiency.

02

Data is shared and is available on time
Develop practices to facilitate seamless internal and external sharing of data, ensuring that data users obtain information in a timely manner, thereby improving the quality and efficiency of decision-making processes.

03

Data is trusted by all stakeholders
Establish practices for providing reliable, accurate and fit for purpose data to build data trust and confidence thereby, facilitating informed decision making.

04

Data is understood uniformly across all stakeholders
Establish practices that enable a uniform understanding of the data to facilitate efficient data exchange and analysis thereby promoting reliability and efficiency in utilizing data assets within the entity.

05

Data practices are compliant with regulatory requirements
Develop data governance and management practices that uphold the regulatory requirements to ensure lawful, ethical and responsible handling of data across the business processes of the entities.

06

Data is managed across its lifecycle as per business needs
Develop practices that help collect, store, dispose/archive data as per its relevance and purpose along with delivering it to the data consumers.

07

Figure-4: National Data Governance Guiding Principles

2.4 Data Governance and Management (DGM) Office Value Proposition

Data Governance and Management Office plays a crucial role in an entity by overseeing and managing the entity's data management strategy while ensuring alignment with its overarching vision and goals. The potential advantages of the data governance and management office are as follows:

Sr. No.	DGM Office Drivers	Value Delivered
01	Regulatory Compliance	The DGM Office ensures accountability for developing, implementing, and ensuring adherence to the data governance and management policies in alignment with the National Data Governance Framework. It facilitates timely availability of reliable and consistent data essential for regulatory reporting through standardized processes for managing data quality and creating data catalogs, thus ensuring regulatory compliance.
02	Strategic Decision-Making	The DGM Office supports informed strategic decision-making by delivering precise insights, achieved through the enhancement of data quality, availability, use cases, and associated controls.
03	Operational Efficiency	The DGM office promotes seamless data sharing and collaboration by providing guidelines for establishing data stewardship and accountabilities. Additionally, reduces data redundancies by establishing processes for business units to consolidate their critical data into a single source of truth.
04	Stakeholder Trust	The DGM Office promotes data transparency by facilitating implementation of standardized processes for data classification, privacy, and personal data protection.
05	Economic growth	The DGM Office supports the development of policies and processes that adhere to regulatory requirements and provision of open data, advanced analytics, and data monetization which promotes creating new revenue streams leveraging the organization's data.

3.0

DGM Office

Organization

3.0 DGM Office Organization

The data governance and management office serve as a strategic enabler that empowers the entity to unlock the full potential of its data assets, align the entity's data management efforts with its strategic objectives while assisting the entities to fulfil the strategic objectives of the National Data Strategy and the National Data Governance Framework.

Towards this, the office works to establish and enforce the data governance and management policies along with oversight on the management and utilization of the entity's data assets. The following sub-sections describe, in detail, the mandate, services and the associated processes of the data governance and management office.

3.1 Data Governance and Management Office Mandate

The entity shall establish a Data Governance and Management Office to drive its Data Governance program. The Data Governance and Management Office shall carry out the following key responsibilities:

- Develop the entity's data management strategy, steer its execution through development of an implementation plan and establish key performance metrics to continuously monitor progress of the entity's data governance program.
- Develop and review the entity's data governance and management policies and processes in accordance with its strategic business objectives and the National Data Governance and Management policies.
- Coordinate with the business units and supervise their data cataloging and data quality management implementation.
- Support the entity to transform into a data-driven organization by extracting insights and achieving financial returns from data.
- Oversee methods for data sharing and storage along with open data publishing while establishing mechanisms for citizens to request and access public data.
- Conduct employee training sessions and awareness workshops for data governance practices.
- Ensure compliance to the National Data Governance and Management framework4, prepare compliance reports and present them to the senior leadership, sector regulators (if applicable) and MTCIT.
- Document and maintain the issues escalated to the Data Governance Committee, the decisions taken on them along with the approval received.
- Represent the entity and attend relevant national and sectoral meetings and initiatives for data governance.

3.2 DGM Office Services and Processes

The Data Governance and Management Office shall be providing the following Data Governance services through the related processes:

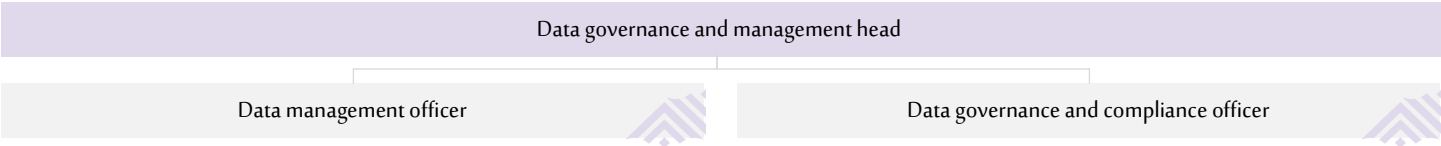| Sr. No.	Service	Description	Processes
01	Data Management Strategy and Implementation Roadmap Development	This service aims to develop the data management strategy of the entity and oversee its implementation through a roadmap of initiatives and projects through collaboration with the entity's business units along with periodic monitoring.	• Develop the data management strategy and implementation roadmap. • Monitor and update the data management strategy and implementation roadmap.
02	Data Governance and Management Policies and Processes Development and Review	This service aims to develop and enforce the policies and processes for data governance and management aligning to the strategic objectives of the entity as well as the National Data Governance Framework.	• Develop the Data Governance and Management policies and processes. • Review the Data Governance and Management policies and processes.
03	Data Catalog Development and Management	This service aims to supervise the development and periodic updates to the entity's data dictionary and business glossary.	• Supervise the data dictionary and business glossary development. • Monitor and update the data dictionary and business glossary.
04	Data Classification Governance	This service aims to supervise the entity's methods for classifying their information assets along with development of artifacts for maintaining the classification information.	• Supervise the impact assessment and application of the data classification labels along with supplementary markers, if any • Support creation and maintenance of data classification register.
05	Data Quality Governance	This service aims to oversee the development of the framework and processes required to manage and implement data quality activities and to ensure the periodic monitoring of data quality levels. It also includes identifying and remediating data quality issues.	• Support development and operationalization of Data Quality framework. • Oversee data quality rules development. • Oversee identification & remediation of data quality issues. • Support automation of data quality processes.
06	Data Architecture Governance	This service aims to oversee and ensure that the business needs are translated into requirements for managing the data across its lifecycle.	• Develop the target state data architecture as per the business requirements.
07	Data Sharing Governance	This service aims to oversee the management and handling of data sharing and sharing agreement.	• Develop data sharing agreements. • Oversee data sharing.

08	Data Analytics Governance	This service aims to oversee identification and prioritization of the analytics use cases based on the entity's strategic requirements across business units within the entity.	• Oversee identification and prioritize the data analytics use cases. • Oversee implementation of the data analytics use cases
09	Open Data Implementation Oversight	This service aims to support the business units to identify, finalize, and publish open data assets for public use.	• Support identification and publishing of open data assets.
10	Reference and Master Data Governance	This service aims to oversee the identification and operationalization of the reference and master data objects within the entity.	• Oversee the identification of reference and master data objects. • Support the implementation of master data management practices.
11	Data Monetization Governance	This service aims to oversee identification, prioritization and implementation of the opportunities for Data Monetization based on entity's strategic requirements.	• Oversee identification and implementation of data products for revenue generation. • Oversee identification and implementation of opportunities for operational cost optimization
12	Public Information Request Management Oversight	This service aims to supervise the processes for managing the citizen requests to access the entity's public information.	• Oversee the assessment and fulfillment of public information requests. • Review decisions on the issues and grievances.
13	Personal Data Protection Governance	This service aims to support the entity's processes for collecting, processing, storing, and deleting of personal data while ensuring protection of the data subject's rights on their personal information	• Support the development and implementation of personal data protection measures.
14	Data Governance Training and Awareness	This service aims to raise the level of awareness of the entity's employees regarding the importance of data, and the data governance and management practices, through awareness sessions and training workshops.	• Develop and maintain data governance and management awareness plans. • Organize data governance awareness sessions and training workshops.
15	Data Governance and Management Policies Compliance	This service aims to measure the entity's compliance to the defined data governance and management policies, prepare compliance reports and follow up on corrective actions for cases of non-compliance as per the 'National Data Governance and Management Compliance Assessment Model'.	• Develop the entity's self-assessment report. • Document and report compliance evidence. • Follow up on non-compliance corrective actions.

3.3 DGM Office Organization Structure

Establishing a well-structured Data Governance and Management Office is crucial to achieve an alignment between the National Data Governance and Management vision and the entity specific data governance and management objectives. The Data Governance and Management Office structure shall be complemented by defining and operationalizing appropriate job roles for establishing accountability and responsibility towards the data assets within an entity. The job roles are categorized into 2 types: Primary roles and Supporting roles.

- **Primary Roles:** Job roles engaged full-time in the Data Governance and Management Office, which are responsible for overseeing and implementing data governance initiatives. These roles ensure that data-related policies and processes are established, maintained, and adhered to across the entity.
- **Supporting Roles:** Job roles within an entity that play a crucial role in facilitating and enabling the implementation of data governance initiatives. While they may not have direct oversight or decision-making authority over data governance and management policies, these roles provide valuable support and assistance to primary data governance roles in addition to their usual activities within their respective business units.

Primary Roles – Data Governance and Management Office

Data governance and management head	
Data management officer	Data governance and compliance officer

Supporting roles

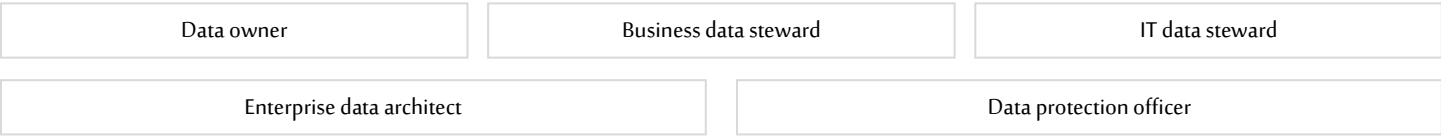| Data owner	Business data steward	IT data steward
Enterprise data architect		Data protection officer

Figure-5: Data Governance and Management Office structure along with supporting roles

3.4 DGM Office Roles and Responsibilities

Below are the outlined responsibilities and necessary qualifications for both primary and supporting roles within the Data Governance and Management Office Organization. The roles are non-exhaustive and multiple personnel can be entrusted with the below mentioned responsibilities (and vice versa) as per the entity specific requirements.

Role	Key Responsibilities
Data Governance and Management Head (Primary Role)	• Oversee the functioning of Data Governance and Management Office. • Facilitate the approval of the data management strategy and advocate sponsorship for the entity's data governance and management program initiatives. • Identify best practices and global data governance trends and provide insights to the Data Governance Committee. • Facilitate the performance review of the entity's data governance and management office and provide inputs to align the office's strategic direction with the entity's strategic business objectives. • Coordinate with MTCIT or sector regulators (as applicable) for resolving the data governance and management compliance related issues and challenges faced by the entity. • Review and provide approval on the compliance assessment reports for submission to MTCIT or sector regulators, as applicable. • Approve the training and awareness plan along with the communication plan. • Represent the entity and participate in national and sectoral meetings and initiatives for data governance and management.
Data Governance and Compliance Officer (Primary Role)	• Develop and maintain the data governance and management policies across the entity. • Onboard and operationalize data governance and management roles required for the program. • Communicate the data governance and management policies across the entity. • Coordinate with the Data Governance and Management Head to resolve the issues escalated by the data governance and management working team. • Monitor and report the data governance and management office key performance indicators to the Data Governance and Management Head. • Develop data sharing agreement templates for sharing data within and outside the entity. • Develop, review and update the compliance assessment framework of the entity. • Oversee the operationalization of the entity's compliance assessment framework along with plans for addressing the cases of non-compliance. • Develop training and awareness plan along with the communication plan. • Generate the compliance assessment reports for the review and approval of the Data Governance and Management Head. • Oversee training programs to increase awareness and understanding of data governance and management initiatives. • Develop and maintain the Data Governance and Management decisions and issue register. • Develop and maintain the Data Classification register of the entity's information assets.
Data Management Officer (Primary Role)	• Coordinate with data owners and business data stewards from the entity's business units to create the data management strategy execution plan and monitor its progress. • Support the business data stewards and IT data stewards to develop and maintain the data dictionary and business glossary. • Oversee the development and implementation of the data quality framework. • Support the business data stewards to identify the reference and master data objects and operationalize the master data management practices. • Oversee the identification and implementation of the data analytics use cases. • Oversee the identification and implementation of data monetization opportunities. • Support the business data stewards to identify and publish the open data assets of their respective business units. • Supervise the processes for managing citizen requests to access entity's public information. • Support the business data stewards to identify the reference and master data objects and operationalize the master data management practices. • Address the data governance and management issues and challenges faced by the business units and escalate them to the Data Governance and Management Head, if necessary. • Collaborate with the Data Governance and Compliance Officer for the procurement of the data governance tools.

Data Owner **(Supporting Role)**	• Accountable for creation and maintenance of data dictionary along with the business glossary and lineage as part of the entity's data catalog. • Approve the critical data elements (CDEs) identified by the business data stewards related to their business units. • Approve the definitions created by business data stewards for CDEs related to their business units. • Accountable for developing and enforcing the data retention, archival and disposal periods of the data assets for their respective business units. • Review and approve plans for implementing data governance and management initiatives specific to their business unit. • Accountable for development of the data quality rules along with planning and remediation of data quality issues. • Review & approve the Data Quality (DQ) rules and thresholds suggested by the data stewards for CDEs related to their business units. • Accountable for conducting the impact assessment and classification of data assets including identification of open data assets for their respective business units. • Approve the classification applied to the information assets of the respective business units. • Accountable for data sharing of their respective business unit data. • Accountable for detailing the requirements of the analytics business cases of their respective business units. • Review and approve the access rights defined by the business data stewards for the data within their business units. • Accountable for identifying the reference and master data used within the business processes of their respective business units. • Support the Data Protection Officer to identify the personal data utilized within the business operations of their respective business units. • Support the Data Governance and Management Head to manage the freedom of information request along with issues and grievances. • Provide approval on the data monetization opportunities of their respective business units.
Business Data **Steward** **(Supporting Role)**	• Implement the data governance and management policies defined within their respective functional unit and help promote a culture of awareness of Data governance and management policies within their functional unit. • Identify the CDEs related to their respective business units. • Prepare business glossary of terms and KPIs maintained within functional unit. • Maintain agreed-upon data definitions and formats for the CDEs of the respective business units. • Develop data quality rules for the CDEs of the respective business units. • Review Data Quality dashboards & serve as the primary point of escalation for any data quality issue. • Perform impact assessment of their business unit's information assets and classify them as per sensitivity including the identification of open data assets for their respective business units. • Responsible to define and enforce the data retention, archival and disposal periods for the data assets within their respective business units. • Responsible for identifying the business requirements for the target state data architecture. • Responsible for reviewing and updating the data sharing agreement for their respective business units. • Responsible for detailing the requirements of the analytics business cases of their respective business units. • Responsible for identifying the reference and master data used within the business processes of their respective business units. • Support the Data Owner to manage the freedom of information request along with issues and grievances. • Raise data related issues, if any in the data governance and management working team & oversee their resolution. • Ensure compliance with the data governance and management policies for their respective business units. • Responsible for assessing the requests as per the data sharing agreement and routing it to data owner for approval. • Define the access rights as per user roles for the data of their respective business units. • Collaborate with the Data Protection Officer and the Data Owner to identify the personal data utilized within the business operations of their respective business units. • Identify the data monetization opportunities within their respective business units.
IT Data Steward **(Supporting Role)**	• Responsible for maintaining data on the IT infrastructure in accordance with business requirements. • Responsible for managing technical environment and database structure. • Responsible for maintaining technical metadata in the data governance tools. • Serve as the primary point of escalation for all system related data issues. • Ensure that the system changes comply to the enterprise data architecture.

	• Ensure compliance with data governance and management policies and processes in their respective IT systems. • Implements the data access defined by the business data stewards within the entity's information systems. • Provide technical trainings to stakeholders on data governance tool usage. • Collaborate with data owners and business data stewards to ensure adherence to the data governance and management policies within the data governance tool.
Enterprise Data Architect **(Supporting Role)**	• Responsible for defining and developing the standards for the entity's data architecture. • Responsible for creating current and target state enterprise data architecture for the entity as per the defined standards. • Ensure the data architecture design artefacts are developed and maintained periodically. • Responsible for overseeing and reviewing the target data architecture compliance of applications during SDLC checkpoints. • Collaborate with business data stewards for developing the conceptual data model for their business processes. • Oversee the development of the integration architecture for the entity's internal/external data sharing. • Responsible for designing the architecture diagram for the entity's reference and master data hub.
Data Protection Officer **(Supporting Role)**	• Responsible for identifying and mitigating risks related to data protection. • Collaborates with the Data Governance and Management Head to remediate issues related to the collection, processing, storage and destruction of personal data. • Develop the privacy controls, such as the consent statement and privacy notice along with the data breach notification process, the data breach register and the contract for third party personal data processing. • Collaborate with business data stewards for identification and documentation of personal data. • Collaborate with information security department and IT Data Stewards for application of privacy controls across the entity's business departments. • Collaborate with the Data Governance and Compliance Officer to monitor and follow up the compliance of the entity's business departments with data protection laws, regulations, policies and procedures and conduct investigations in case of non-compliance. • Responsible for reviewing the security breach incidents, and data leakage issues and ensuring that data security and protection controls are in place. • Responsible for reporting the breach incident to the Electronic Defense Center and if needed, to the data subject.

3.5 DGM Office Positioning

The Data Governance and Management Office should be established as an independent function directly reporting to the head of entity. This provides the Data Governance and Management Office full autonomy to implement its data management strategy without being influenced by other business units. It fosters smooth coordination among various business units and instills confidence in stakeholders by guaranteeing unbiased data handling and compliance.
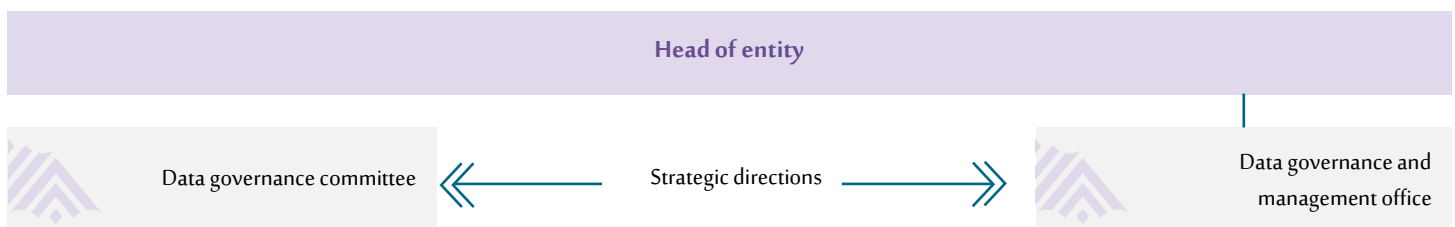

Figure-6: Data Governance and Management Office as an independent function

4.0

DGM Office

Governance

4.0 DGM Office Governance

4.1 National Data Governance for sectors

MTCIT shall collaborate with the sector regulators to ensure adoption of the National Data Governance Framework within the different sectors. The governance structure comprises of 3 levels:

- **National Regulator**: MTCIT shall be the national regulator for the Data Governance Framework and shall provide directions for handling national data to boost competitiveness, economic growth, and development.
- **Sector Regulators:** The sector regulators shall collaborate with MTCIT to provide sector specific data governance and management directions.
- **Government Entities:** The government entities shall ensure adherence to the National Data Governance Framework developed by MTCIT.
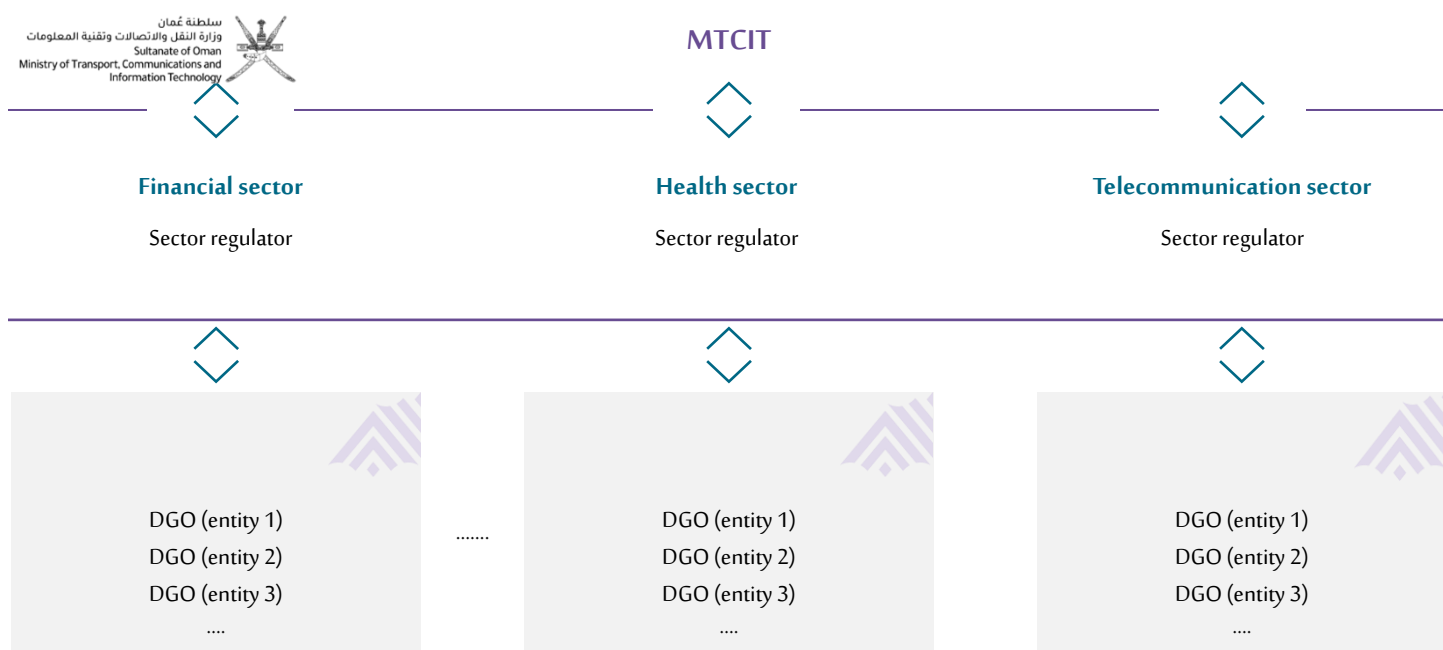

Figure-7: Governance structure for private sector entities

4.2 Governance Model

A governance model shall be established for structuring the data governance and management functions of the entity and handling its data governance related issues. The governance model includes the following three forums:

- **Data Governance Committee:** The Data Governance Committee sets the strategic direction for the entity's data governance and management program and acts as the final authority to decide on all decisions and issues related to data governance and management. It oversees the performance of the entity's data governance and management office, approves the entity's data management strategy, policies and processes along with obtaining sponsorship for the entity's data governance and management program initiatives.
  - o **Meeting Frequency:** Quarterly

- **Data Governance and Management Working Team:** The Data Governance and Management Working Team implements the data governance and management policies and related practices through the performance of day-to-day activities across all business units within the entity.
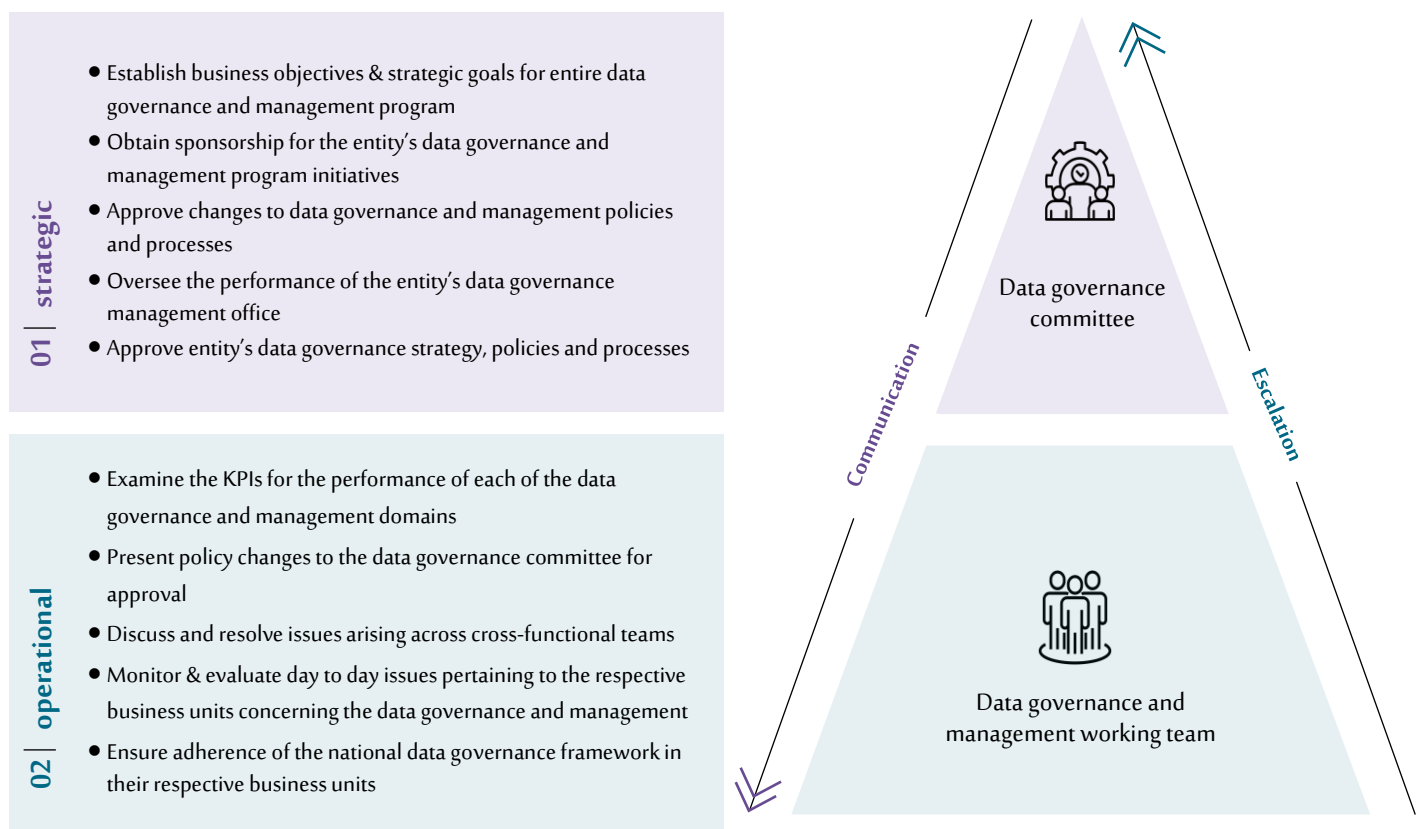 - o **Meeting Frequency:** Weekly

01 | strategic

- Establish business objectives & strategic goals for entire data governance and management program
- Obtain sponsorship for the entity's data governance and management program initiatives
- Approve changes to data governance and management policies and processes
- Oversee the performance of the entity's data governance management office
- Approve entity's data governance strategy, policies and processes

02 | operational

- Examine the KPIs for the performance of each of the data governance and management domains
- Present policy changes to the data governance committee for approval
- Discuss and resolve issues arising across cross-functional teams
- Monitor & evaluate day to day issues pertaining to the respective business units concerning the data governance and management
- Ensure adherence of the national data governance framework in their respective business units

Data governance committee

Communication

Escalation

Data governance and management working team

Figure-8: Governance Model for Data Governance and Management Office

4.3 DGM Office Interaction Model

The model below provides a demonstration of how the Data Governance and Management Office of a government entity interacts with MTCIT, Internal Stakeholders and External Stakeholders for various responsibilities and tasks corresponding to data governance and management.
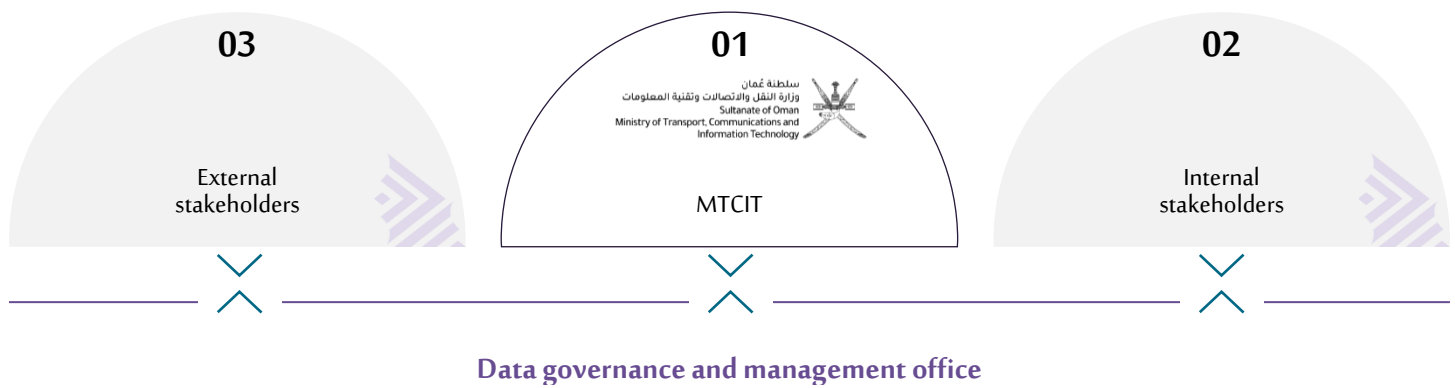
03

External
stakeholders

01

سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and
Information Technology

MTCIT

02

Internal
stakeholders

Data governance and management office

The interactions showcased in the above interaction model are described as follows:

Interaction 1: Interaction between MTCIT and the Data Governance and Management Office of a government entity

- MTCIT prepares the National Data Governance Framework consisting of Data Governance and Management Policies, Reference Data Governance Operating Model, and the Data Governance Compliance Assessment Model

- The entity adopts and implements the National Data Governance and Management Policies within its business units.

- MTCIT monitors and evaluates the entity's compliance towards the National Data Governance and Management policies.

- The entity submits its compliance assessment reports along with challenges faced by its Data Governance and Management Office in enhancing the level of data management capabilities.

- MTCIT resolves the escalations reported by the entity and provides advisory support to the entity in executing its data management strategy, as well as the corresponding policies and processes.

Interaction 2: Interaction between the Data Governance and Management Office of a government entity and Internal Stakeholders (Business Units, IT Department, Documents and Archival Department, Legal and Compliance Department, and Information Security Department).

- The Data Governance and Management Office collaborates with the business units in formulating data governance and management policies and processes.

- The business units implement data governance and management policies and processes.

- The Data Governance and Management Office develops the policies in collaboration with Legal and Compliance department for data storage, backup, retention, and archival as per the requirements of the business units and any the legal/ regulatory requirements.

- The Data Governance and Management Office ensures the IT department implements the data storage, backup, retention, and archival policies within the entity's systems.

- The business units escalate the data challenges to the Data Governance and Management Office. The Data Governance and Management Office handles data issues and escalations in case of non-resolution.

- The business units share data suggestions and complaints with the Data Governance and Management Office.

- The business units and IT department report data compliance results and attach supporting evidence. The Data Governance and Management Office oversees and reviews the compliance results submitted by the business units.

- The Data Governance and Management Office shares and raises awareness of data governance and management policies and processes among the business units.

- The Data Governance and Management Office collaborates with the internal stakeholders to develop the data governance and management plans and oversees their execution.

Interaction 3: Interaction between Data Governance and Management Office of a government entity and External Stakeholders

- The external stakeholders (e.g., NRAA) develop policies, standards and guidelines related to the domains not covered by the National Data Governance Framework (e.g., document and content management).
- The Data Governance and Management Office collaborates with the external stakeholders to implement the policies of the domains not covered by the National Data Governance Framework.
- The external stakeholders ensure compliance of the policies not covered by the National Data Governance Framework
- The Data Governance and Management Office ensures compliance with the policies developed by the external stakeholders within their respective entities.

4.4 DGM Office Performance Management

The services performed by the Data Governance and Management Office shall be monitored and evaluated through tracking of the operational performance indicators that shall include, at minimum, the following:

Sr. No.	Data Governance Service	Performance Indicator	Description
01	Strategy and implementation roadmap development.	Initiative completion indicator	The indicator measures the ratio of the number of initiatives completed over the number of initiatives planned as per the implementation roadmap at program level.
02	Policies and processes development and review.	Policy control implementation indicator	The indicator measures the ratio of controls linked to policies implemented over total control linked to policies approved for implementation.
03	Data catalog development and management.	Data catalog development ratio indicator	This indicator measures the ratio of the number of CDEs catalogued over the total number of CDEs identified.
03	Data catalog development and management.	Data catalog change indicator	This indicator measures the ratio of the number change requests executed for the data catalog over the total number of change requests received.
04	Data Classification Governance	Data Classification indicator	The indicator measures the ratio of the number of data assets classified over the total number of data assets for a particular entity.
05	Data Quality Governance.	Data Quality Index	This indicator measures the ratio of records that pass the DQ rules against the total number of records processed.
05	Data Quality Governance.	Data Quality issue resolution index	The indicator measures the ratio of data quality issues resolved over total data quality issues reported.
05	Data Quality Governance.	Resolution time indicator	The indicator measures the average time taken to provide a resolution for a data quality issue.
06	Data architecture governance	Data architecture alignment indicator	The number of architectural components implemented in alignment with the developed target data architecture.
07	Data sharing governance.	Data sharing agreement adoption indicator.	The indicator measures the number of data sharing requests executed through the data sharing agreements over total number of data sharing requests executed.

08	Data analytics business use case implementation.	Analytics business use case implementation indicator.	The indicator measures the total number of potential data analytics business use cases implemented over the total number of business use cases identified.
09	Open data implementation oversight.	Open data asset publishing status indicator.	The indicator measures the number of open data assets published over the total number of open data assets planned for publishing.
10	Reference and master data governance	Master Data Implementation Indicator	The indicator measures the number of master data objects implemented in the MDM tool over the number of master data objects planned for implementation.
11	Data monetization governance.	Data Monetization implementation indicator.	The indicator measures the number of opportunities implemented for revenue generation or cost optimization over the number of opportunities identified for revenue generation or cost optimization.
12	Public information request management oversight.	Public information request execution time indicator.	The indicator measures the average time taken to process and execute the requests for access to entity's public information submitted by individuals.
		Issue and grievance redressal indicator.	The indicator measures the ratio of number of issues and grievances resolved over the total number of issues and grievances raised.
13	Personal Data Protection governance	Personal data identification indicator	The indicator measures the number of business processes reviewed for personal data identifications over the total number of business processes within the entity.
		Personal data control implementation indicator	The indicator measures the implemented controls for the identified personal data elements over the total number of identified personal data elements.
		Data breach incident index	This indicator measures the percentage change in the number of data breach incidents reported annually.
14	Data governance training and awareness.	Training completion index	The indicator measures the ratio of the count of training and awareness sessions held by an entity over total count of training and awareness sessions planned.
		Training attendance index	The indicator measures the ratio of the count of the stakeholders present in the training and awareness sessions over the total number of planned stakeholders.
15	Data Governance and Management policies compliance.	Non-compliance indicator	The indicator measures the number of cases of non-compliance observed during the internal compliance assessment with respect to National Data Governance and Management Policies.
16	Data Governance and Management process automation.	Process automation indicator.	The indicator measures the ratio of number of data governance and management processes automated (through adoption of data governance tool) over the total number of data governance and management processes.