# Implementing an Effective Enterprise Data Management Policy

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## Abstract

Data Management encompasses all disciplines related to managing data as a valuable resource. It is a business-driven, enterprise-wide shared responsibility that covers the entire lifecycle of data and includes the ingestion, storage, access, controls, governance, quality, meta-data, usage, analysis, security, retention, and disposal of data. It is imperative and within the best interests of an organization to manage data effectively and accurately as an asset by implementing and maintaining an Enterprise Data Management (EDM) program. Typically, this program is overseen by the Data Governance Office (DGO).

## Keywords

Data Management, Data Governance Office, Critical Data, Data Custodian, Enterprise Metadata Collection, Metadata Management

## Introduction

The purpose of this document is to provide guidance on critical data management assets or critical metadata, that are associated with mission critical and business critical processes that support the safe and reliable business daily operations of an organization.

- To ensure critical data management assets are identified, cataloged, and maintained across an organization. Typically, organizations use an artifact called Enterprise Metadata Collection Template to collect this information.
- To ensure that critical data management assets have owners identified and assigned to roles with defined responsibilities.

This document is bifurcated into the following subject areas that aid to an effectual implementation of an enterprise data management policy. Please note that each process would serve a precursor to the succeeding phase.

### 1. Data Management Assets

Data Management Assets represent metadata within the organization and are classified into three groups: Business Assets, Data Assets, and Technology Assets.

Business Asset Group captures everyday business terms and establishes a common understanding for our organization's language. Examples of Business Asset sub-types include:

- Business Terms: Account Activity Log, Network Control Center, Service Provider
- Acronyms: 2FA (Two Factor Authentication), CPNI (Customer Proprietary Network Information)

Data Asset Group captures information about the technical organization of the data. Examples of Data Asset sub-types include:

- Columns: first_name column stores values for Customer First Name, service_date stores values for Service Date.
- Tables: customer_address&iot_subscriber.

Technology Asset Group captures information-technology related details about the storage of the data. Examples of Technology Asset sub-types include:

- Systems: Customer Data Warehouse, SAP, Azure
- Databases: i360, HIS Sales Force

## 2. Critical Data Management Assets

It is imperative that metadata for critical data management assets must be available within the Metadata Management platform.

- The metadata attributes marked as 'Required' in the enterprise metadata collection template must be collected when data management assets are identified and catalogued within the Metadata Management platform.
- Critical data management assets must be kept up to date as they evolve, and updates must be reflected within the appropriate platform's catalog.
- Critical data management assets and the critical process(es) they support must have an established relationship within the Metadata Management platform. The metadata attributes of type 'Relation' and marked as 'Required' in the enterprise metadata collection template must be collected when data management assets are identified and catalogued within the Metadata Management platform by the Line Of Business (LOB) Operational Stewards.
- Critical data management assets identified must have personnel identified and assigned to stewardship roles, per expectations set by the LOB data asset family owner.

## 3. Identification of Critical Data Management Assets

This is perhaps the most crucial phases in the process.

- Data management asset(s) associated with at least one critical business process for each Line of Business (LOB) are identified as critical data management asset(s).
- Collectively, the LOB Leadership Data Stewards are accountable and responsible for the identification of all critical data management assets within their LOB.

## 4. Roles and Responsibilities

A three-tiered stewardship structure consists of:
- **Enterprise:**

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| Executive Sponsor | - Charters Enterprise Data Management Policy (EDMP) |
| Director (Data Governance) | - Accountable for directing and executing EDMP<br>- Establishes, and provides governance, oversight |
| Enterprise Data Governance Committee | - Advisory committee for EDMP<br>- Represent LOB matters and provide updates to EDMP team |

- **LOB Leadership Data Stewards:**

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| Data Asset Family Owner | - Member of the Enterprise Data Governance Committee and represent the LOB<br>- Sets expectations for LOB Operational Data Stewards<br>- Responsible for EDMP policies and standards implementation and adherence within the LOB, supported by the LOB Data Governance Team<br>- Develops LOB data management procedures and establishes LOB metrics to assure compliance with standards and procedures<br>- Supports the actions of Operational Data Stewards in working with complex or multi-LOB inquiries or projects as needed |
| Directors | - Accountable for certification of Data Management Assets for business areas assigned<br>- Accountable for executing EDMP and LOB data management requirements for a set of business areas assigned under LOB |
| Managers | - Responsible for certification of Data Management Assets within the business area<br>- Responsible for adherence to EDMP policies and standards within the business area |

- ## **LOB Operational Data Stewards:**

| Operational Data Stewards – includes Business Data Steward, Technical Data Steward (and) Data Custodian | - Executes EDMP and LOB governance requirements on data-related workflows, processes, life cycle and business rules<br>- Responsible for data management assets creation, cataloging, and management<br>- Collaborates with Subject Matter Experts (SMEs) to maintain accurate and timely data management assets |
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| Contributors & Consumers – Analysts, SMEs, Other data users | - Holds 'Read only' access for data management assets<br>- Assists with data management assets development, and may propose updates, including additions or deletions<br>- Responsible for day-to-day stewardship of Data Management Assets, such as producing accurate data inputs and using the right data for business purpose |

**Conclusion**

The benefits of defining and implementing an effective data management policy may not be available to the organization immediately. The outcomes will become visible slowly but steadily. Once the process attains a stability, we can expect the following outcomes from it:

- Establishing and enforcing organization roles and responsibilities, policies, processes, procedures, and standards
- Lifecycle Management of Metadata
- Creation and governance of data pipelines for the intake of data
- Data quality continuous improvement
- Master and eference Data Management
- Data Integration and modeling
- Data Storage, Operations and Disposition
- Data Architecture and Infrastructure
- Business Intelligence

Constant review by senior management with the DGO is imperative as it would ensure that data management policy is on the right course to business need fulfillment.

**Glossary**

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| Metadata | Describes what data an organization has, what it represents, how it is classified, where it came from, how it moves within organization, how it evolves through use, who can and cannot use it and whether it is of high quality. |
| Critical Data | Data associated with an organization's mission critical or business critical process |
| Critical Data Management Assets | Data Management Assets, or metadata, associated with an organization's mission critical or business critical process and is therefore deemed "critical". |
| Line of Business | Also known as Business Area or Business Unit, the Line of Business is a logical element or segment of an organization that serves a business need. |
| Data Custodian | A user who collects and holds information on behalf of a data provider/requester and manages the use, disclosure, and protection of data. |
| Business Data Steward | Responsible for the data owned by that business function. |
| Technical Data Steward | Technology folks with knowledge about how applications, data stores and ETL (extract, transform, load) processes work. |
| Enterprise Metadata Collection Template | This document specifies a grouping of attributes that define what values can be populated for a particular data asset. |

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