birlasoft

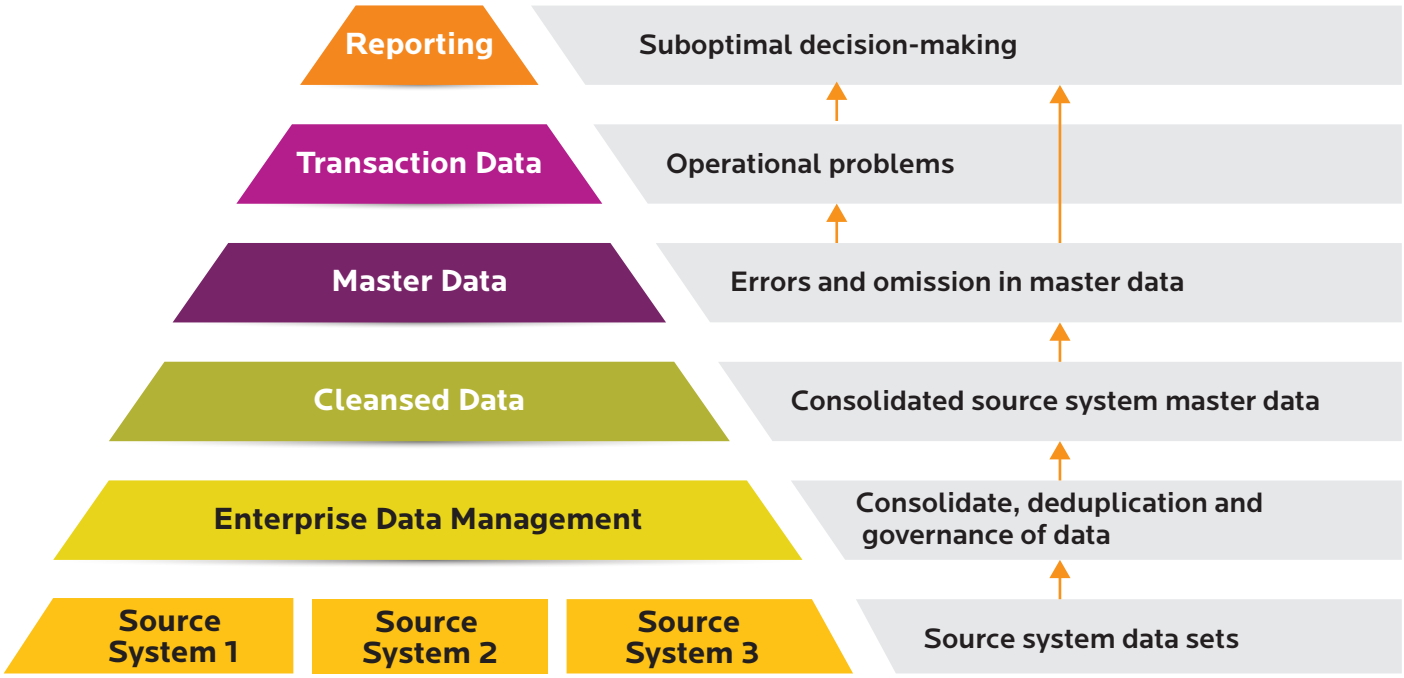
Enterprise Data Management Strategy Across Bank Financial Service Industry

Table of CONTENTS

> ***By failing to prepare, you are preparing to fail.***
>
> **BENJAMIN FRANKLIN**
> Founding Father

What is Enterprise Data and Enterprise Data Management?

- **Enterprise Data** is the high-value, core information used to support critical business processes across the enterprise. It is the heart of every business transaction, application and decision
- **Enterprise Data** is information about customers, suppliers, items, locations, employees, and assets, finances and much more. It also includes reference data like payment terms, country codes, unit of measures, etc.
- **Enterprise Data Management (EDM)** is the capability for an organization to maintain a single source of truth for all it's master data- consistently and diligently through updates and upgrades across the enterprise architecture landscape
- **Enterprise Data Management (EDM)** includes following on enterprise data
  - *Definition, Consolidation and Harmonization*
  - *Data Quality: Cleanse, De-duplicate and Standardize*
  - *Active Governance – Role based access ownership*
  - *Publication across enterprise including reporting*
  - *Archival and Retrieval of Historical Data*



Key Challenges with Enterprise Data

The following are high-level challenges across enterprise data.

Product Data Challenges

- Product description/s and /or standardization mismatch
- Attribute requirements for downstream systems for compliance, planning, finance etc.
- Duplicate/ inaccurate product nomenclature
- “Business rules” live in users’ heads and are not automated, causes transactional errors
- Inaccurate analytics and reports

Supplier Data Challenges

- Lack of self-service interfaces for suppliers to self-maintain information i.e., item/compliance details, contacts or banking information
- No standardization across supplier naming conventions and/or unique ID’s
- Supplier part number not consistently supported
- Supplier creation and maintenance is not workflow driven and/or manually maintained
- Migration to international suppliers introduces compliance risks
- Address validation is manual

Financial Data Challenges

- User demands for data – Fulfill customer demands for to become the data-driven enterprises
- Complex Data Architecture leading to a lack of data ownership for respective business unit (Retail, Loans and Deposits, Credit, etc.)
- Multiple versions of Chart of Accounts with no well-defined cross mappings
- Unique account definition SOP
- Multiple/ disconnected Finance Accounting Categories
- Account reconciliation becomes a challenge due to poor attribution

Customer Data Challenges

- Customer naming conventions mismatch across in-house systems
- Incorrect or duplicate customer addresses
- Customer account data cross mapping gaps leads to inaccuracies and gaps
- Inability to manage alternate views/ roll-ups across enterprise hierarchies
- Recounted, unaccounted, or inaccurate credit limit validations
- Incorrectly duplicated customer details

Key Challenges with Enterprise Data Across Banking Financial Service & Insurance Industry

The following are the key challenges across BFSI domain

- Large amounts of data. This may increase further with Mergers and Acquisitions bringing in more data pools
- Complex data architectures requiring manual data maintenance
- Massive volumes of data are pouring in from mobile banking apps and devices in a variety of formats
- Limited data quality checks and automation relying on the source systems for data validation
- To maintain Regulatory & Compliance data digitally in a single repository as BFS Companies are bound by strict compliance regulations like FATCA, BASEL and unable to comply resulted into hefty fine.
- Lack of automated data standardization, enrichment processes, and tool
- Limited trust in data currently for running insights and analytics
- Client centricity is lacking since data is spread across multiple sources

Enterprise Data Management Use Cases Across the BFSI Industry

The following are the major use case across the Banking Financial Services Industry domain wherein the above data challenges could cause discrepancies if the data issues are not corrected at source systems.

Banking and Financial Services

- Product and Customer Analytics: 360-degree (single) view of customer portfolio.
- Marketing Analytics: Getting too prescriptive from predictive
- Product operations Robotic Process Automation
- Fraud detection, learning, and reducing false negatives in Cards and Lending business
- Cybersecurity monitoring and surveillance and threat prevention
- Risk Management
- Anti-money laundering
- Personalized Wealth Management: Lifetime needs analysis using social media and unstructured data
- Investment Management or hedge funds utilizing machine learning to identify patterns and scenarios

Insurance: Life, Health, Auto, Personal & Commercial

- Underwriting improve actuarial models and algorithms. Customer engagement using virtual advisors
- Operations Robotic Process Automation and historic analysis to uncover new insights
- Claims
- Straight through processing using cognitive insights, engagement, and process automation
- Fraud detection, learning, and reducing false negatives

Why and What of Enterprise Data Management (EDM)

What is Enterprise Data Management?

Enterprise Data Management is a SaaS based master data management tool used to input, monitor, and maintain consistent master data which eventually feeds to various target systems. It allows cross integration of Supplier, Product, Customer and other master domains' data. EDM leverages both out of the box and custom adapters to connect to other cloud, on-premise and legacy systems within the enterprise architecture landscape.

Why use Enterprise Data Management?

Enterprise Data Management creates a single centralized master repository for your data built in accordance with regulatory and governance compliance. It establishes, measures, and improves data quality with use of global data standards/glossary. EDM allows for robust Audit capabilities, advanced searching and reporting capabilities, and multi-level workflow approval mechanism.

What is in it for BFSI?

Enterprise Data Management enables a secure & cleansed data sharing model. It offers financial institutions an organic incremental approach to data management across all master data domains. It enables search of metadata and data with accuracy, along with the capability to export it in multiple formats while maintaining a true master data core with business defined established standards. Further, EDM provides ease of onboarding new data and systems, e.g., in case of "Mergers and Acquisitions" scenario will be less disruptive.

Data Quality Management Framework

An advanced data quality program uses an established framework combined with advanced automation tools to execute and scale evaluation of data completeness, accuracy, validity, reliability, timeliness, and effectiveness to support your objectives.

Data Quality Framework encompasses of the following functional areas: ***Starts with definition but this is an iterative and continuous process***

- **Definition** – getting to know the current customer landscape
- **Discovery** – getting to know the data sources in scope
- **Assessment/Profiling** – Assessing the data quality requirements by profiling the sources in scope
- **Remediation** – setting a strategy to remediate identified data issues
- **Enrichment** – augmenting the data attributes based upon the data remediation strategy
- **Monitoring/Automation** – continuous monitoring of data issues and continue to remediate them either manually or leveraging automated tools

Enterprise Data Management Framework

In order to achieve the ultimate data quality nirvana, an organization needs to follow the below framework. This is not an optional step!

Corporate Goals – An organization needs to set up their strategic goals and business drivers for achieving data quality improvements, operational efficiencies and data compliance for their master as well as operational data which can only be achieved if there is sponsorship from their leadership which supports this initiative

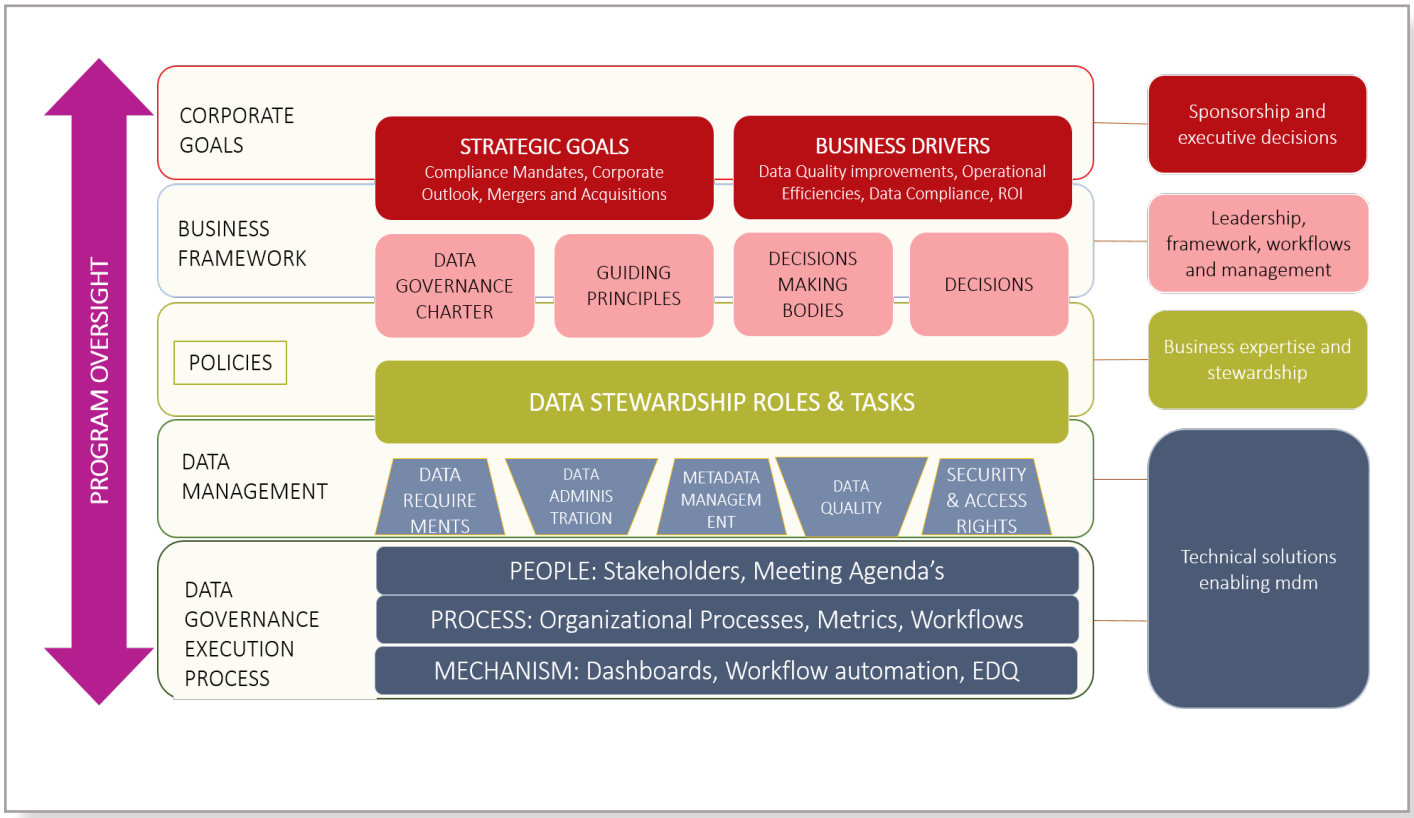
Business Framework – Once the corporate goals are in place and the stakeholder expectations are set, the next step will be setup a framework around it by setting up:

- **Enterprise Data Governance Charter** – Without a charter even a small project cannot start so setting the stage for the framework is setting the objectives, rules and process in place
- **Guiding Principles** – Principles around how the framework objectives will be achieved
- **Decision Making Bodies** – Councils and bodies that will help making decisions around the principles and objectives
- **Decisions** – Decisions on who, how, what and when for any data management activities using people from various groups

Data Management – Once the data stewards, data custodians and data rules are in place then the data management tasks can be assigned and scheduled e.g.,

- All CRUD tasks (Create, Read, Update, Delete/Archive)
- Master Data Administration
- Metadata Management
- Data Quality Execution
- Setting up Data Security and Access

Data Governance Execution Process – Using the framework, charter, policies, rules, bodies; the data management tasks will be executed using people, process and mechanisms like automation, workflows and finally creating analytics around the data management for the stakeholders and leadership to assess the ROI.



How can you measure your current data quality?

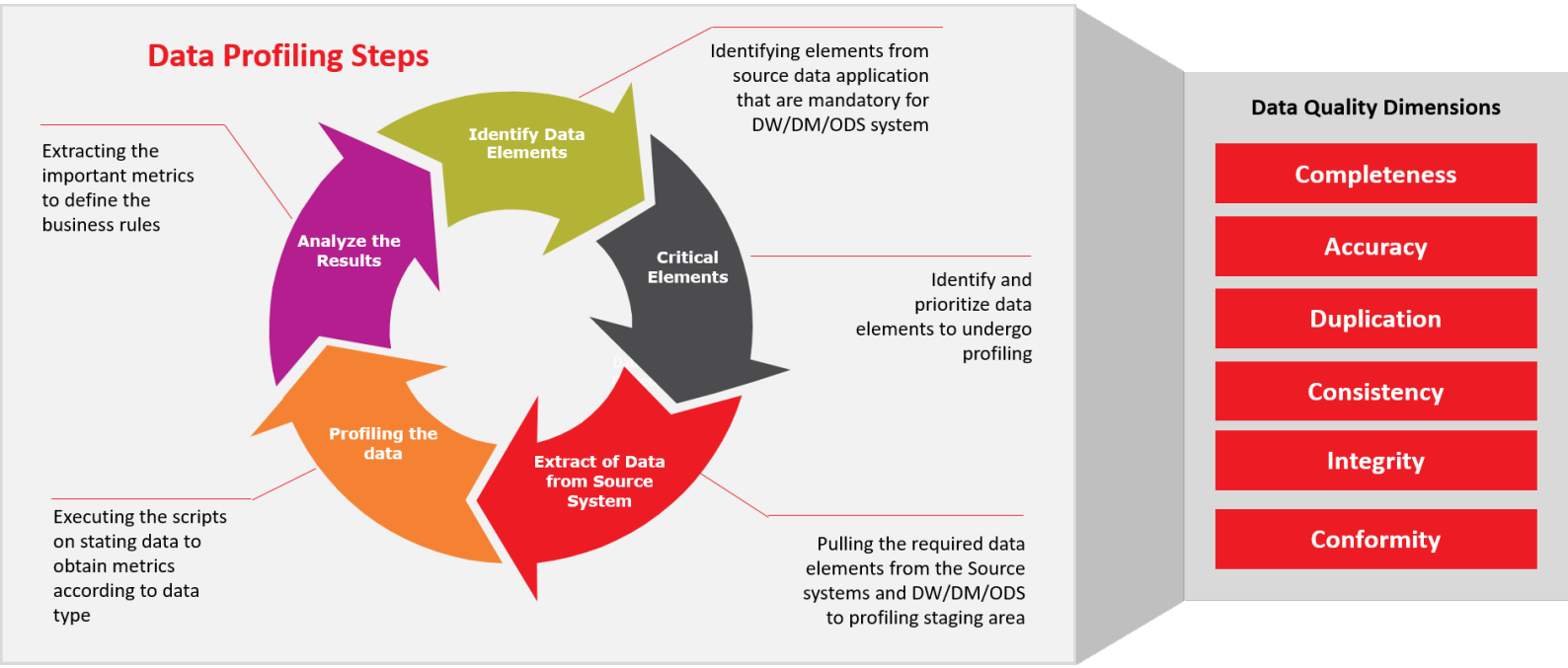
In order to execute the data quality tasks based on the framework defined above, data quality will be assessed based on the following industry accepted typical dimensions within an ecosystem. These dimensions will be used to correctly assess the areas where the remediation is needed and who from the business can achieve that.

Completeness	▪ Is relevant requisite information available? ▪ Are data values missing, or in an unusable state?	▪ In some cases, missing data is irrelevant, but when the information that is missing is deemed critical to a specific business process, completeness becomes an obvious issue
Accuracy	▪ Do data objects carefully represent the "real-world" business values they are expected to model?	▪ Incorrect data or not current data can impact operational and analytical applications
Duplication	▪ Are there multiple, unnecessary representations of the same data objects within a given data set?	▪ The inability to maintain a single representation for each entity across many component business systems exposes you to numerous vulnerabilities and risks
Consistency	▪ Do distinct data instances provide conflicting information about the same underlying data objects? ▪ Are the values consistent across all data sources?	▪ Data inconsistencies represent the number one root cause in data reconciliation between different systems and applications
Integrity	▪ Which data elements are missing important relationship linkages?	▪ The inability to link related records together may introduce duplication across multiple systems which increases the complexity of any corresponding business intelligence derived from those sources
Conformity	▪ Are there expectations that data values conform to specified formats? ▪ If so, do all the values conform to those formats?	▪ Maintaining conformance to specific formats is key in data representation, presentation, aggregate reporting, search and the establishment of key relationships

Enterprise Data Quality – Data Profiling

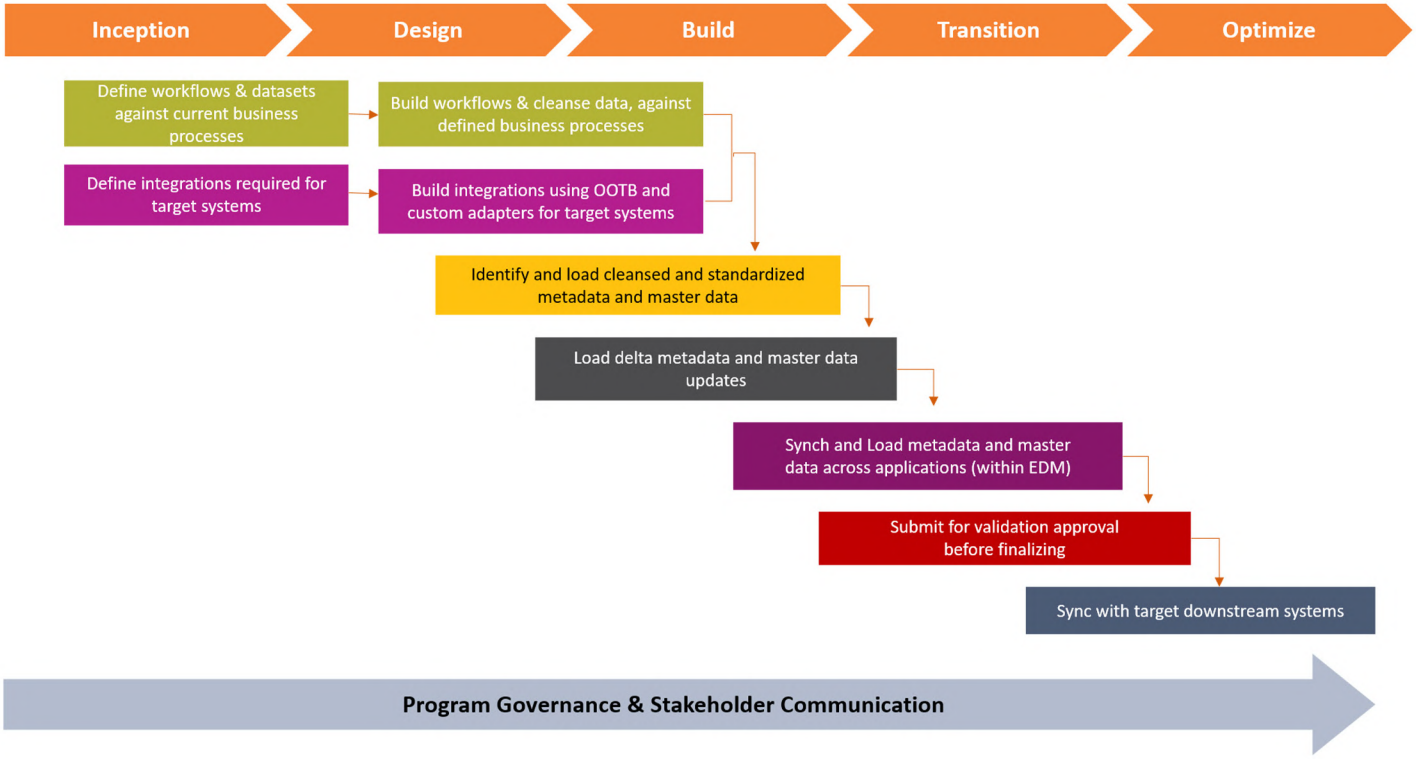
Data profiling is an integral part of the assessment phase of the project, focused on identifying data quality issues, anomalies, trends and relationships based on a defined profiling strategy and business rules. Continuing the tasks created per the framework defined earlier the following data profiling tasks will be executed to correctly bucket the data issues using the dimensions:

- Identify data elements from the sources
- Identify and prioritize the critical data elements
- Extract the data from the sources for the prioritized attributes
- Profile the data
- Analyze the results for remediation



Key activities in an EDM implementation

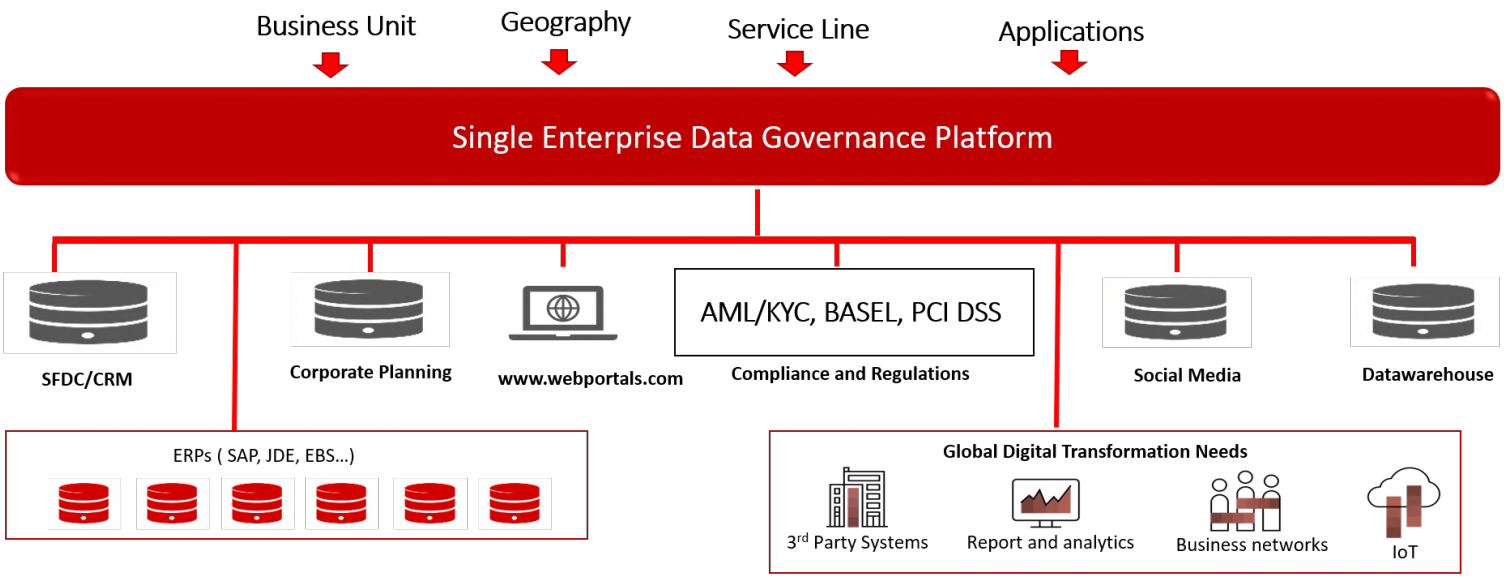
As per the “Enterprise Data Framework” defined earlier, once the data management tasks and data quality checks are in place; it becomes earlier and seamless to apply existing policies and guidelines for any project to be executed. The below graphic explains when and which guideline to be used in each phase of a project:



Typical EDM architecture example using Birlasoft’s tools

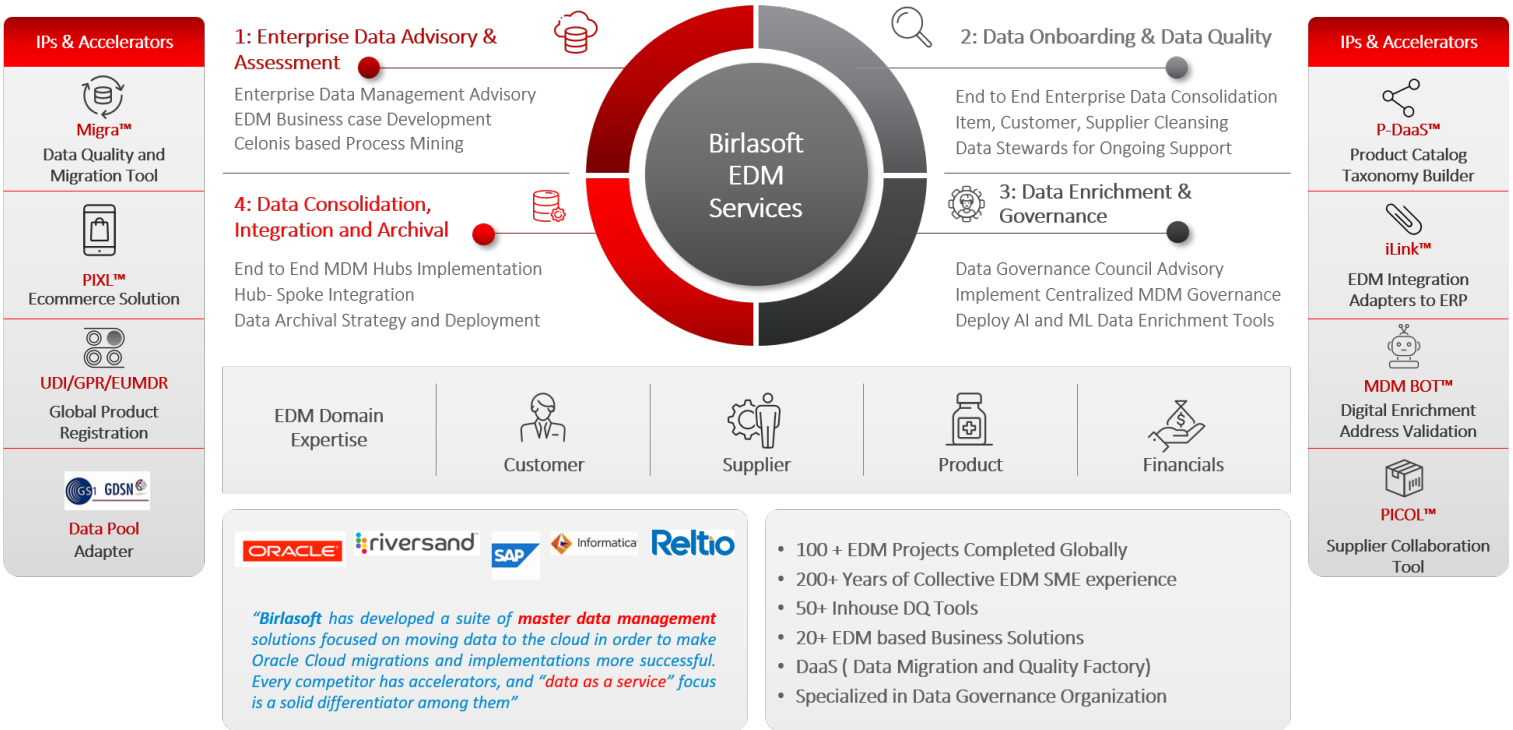
This architecture depicts how typically Biralasoft’s tools can be leveraged for an organization to achieve the ultimate “Enterprise Data Management” nirvana stage once all the steps prescribed in this document are already in place! The middle section in “Green” is the EDM Framework explained earlier along with a Enterprise data model which is a repository of cleansed, corrected and complete set of master and operational data using the rules and guidelines from the framework.

All the data sources are on the left, data warehouse in the bottom and downstream systems receiving the enriched and correct data are on the right using Birlasoft’s tools e.g. iLink, PIXL to name a few for integrations between product data sources to ERPs or data marts.



Birlasoft's Enterprise Data Management Footprint

The below graphic depicts Birlasoft's Enterprise Data Management footprint and implementations.



Why Birlasoft

Birlasoft provides a unique digital consultancy that offers you access to leading-edge thinking and capabilities. With unmatched depth in the categories and geographies that matter most, Birlasoft combines strategy with deep technology, analytics and operations experience, to create pragmatic outcomes. We understand the needs of your organization and will position you to start the journey immediately through an approach that drives alignment. We have successfully completed all our prior engagements with customer happiness as the ultimate end goal.

RESOURCES

contactus@birlasoft.com | birlasoft.com

Enterprise to the Power of Digital™

Birlasoft combines the power of domain, enterprise and digital technologies to reimagine business processes for customers and their ecosystem. Its consultative and design thinking approach makes societies more productive by helping customers run businesses. As part of the multibillion dollar diversified The CK Birla Group, Birlasoft with its 10,000 engineers, is committed to continuing our 159-year heritage of building sustainable communities.