



**Why we need
Unified Data
Management**

Most organizations today follow a data-silo model with disparate systems catering to specific business segments with nil or very less correlation between them. These individual systems often engage different data integration and management frameworks and toolsets to cater to its segment-specific data interface and transportation requirement, which results in

- Disparate and duplicate tool ecosystem serving identical capability
- Siloed and disintegrated data management team catering to each system
- Increased project cost due to unoptimized team size and tool numbers
- Lack of access to unified organizational data, leading to loss of business insights and trend analysis

Under these circumstances, Unified Data Management(UDM) framework lays down a process to consolidate data from disparate data sources of an organization by identifying the

integration factors among those and storing the unified data in a common data repository within a data warehouse. This in turn, initiates rationalization of system-specific data integration and management framework into a single organization-wide framework and optimization of multiple Data Integration (DI) teams into a single Data Center of Excellence (CoE) using an optimized DI tool landscape.

UDM drives interdepartmental cooperation by providing a common storage-base where data across different applications of an organization is cleansed, parsed and transformed using unified data dictionary. In a UDM platform, different data governance processes (Data Quality, Transformation, Metadata Ingestion, Data Lineage mapping, Data Discovery etc.) work in cohesion to retrieve the maximum business insights and to drive organizational transformation and regulatory compliance through enterprise wide data assets (See Figure 1).

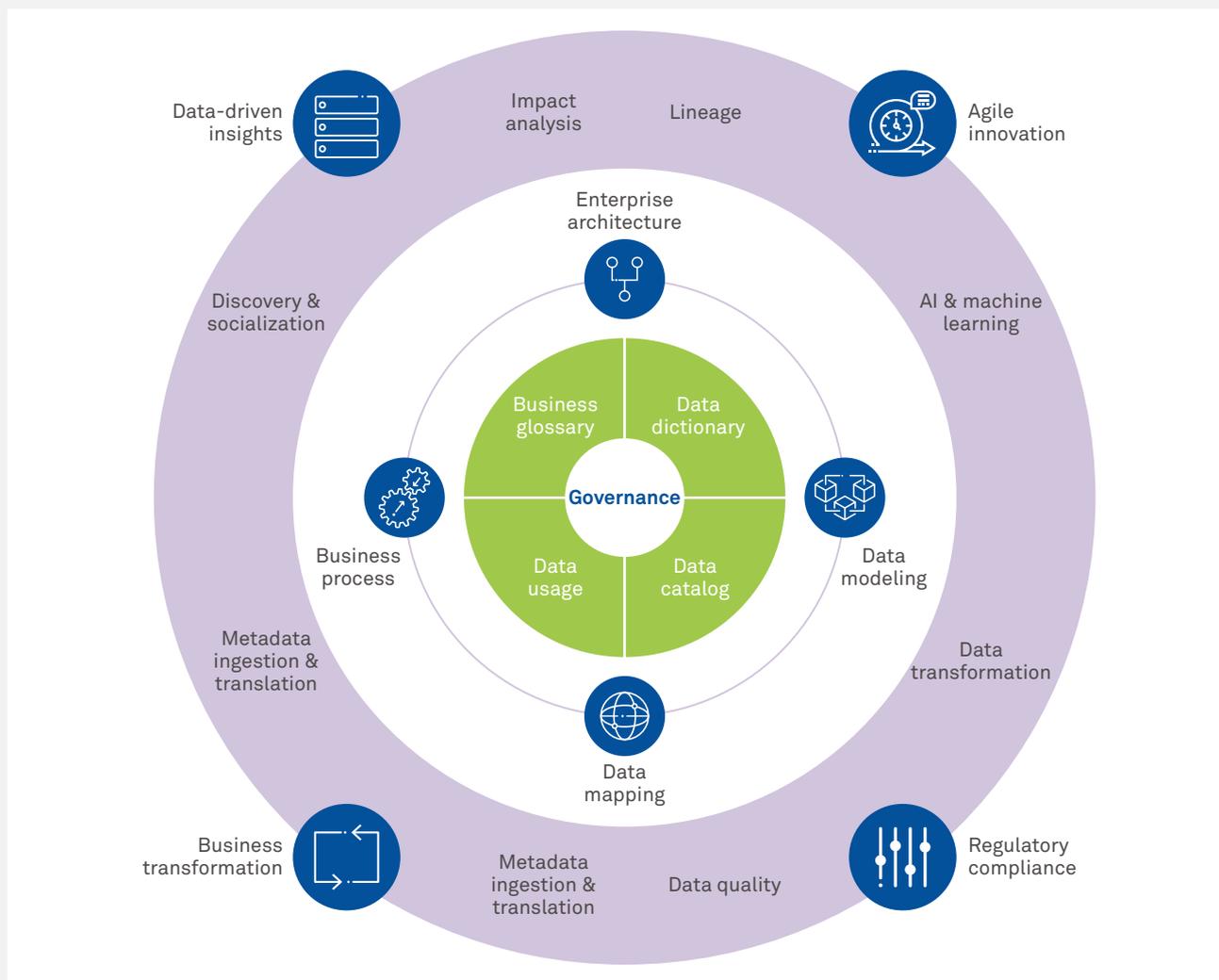


Figure 1: Unified Data Management platform

What are the business drivers of UDM?

UDM includes both strategic and technical aspects. The success of UDM is determined by its ability to effectively align the upgradation of the organizational data management framework with the agreed business goals.

UDM should cater to these two requirements:

1. Enable coordination of disparate data management principles: This revolves around collaboration and integration of development efforts among different data management teams and interoperability of the corresponding server, network and code artifacts. It also enables sharing of data management architecture and infrastructure components among different teams. The final product will require the amalgamation of the individual data management team for each of the disparate source systems/applications into a single lean one that can perform the data quality, integration, management and governance activity on the resultant unified centralized data repository.
2. Support strategic business objectives: UDM should enable an organization to utilize its corporate datasets for extracting business insights and channeling the information obtained to support business goals. A business should first identify and prioritize the goals and communicate to the technical data management team the data-driven requirement for targeting those goals. Thus, UDM has evolved from being the technical data integration framework for organization-wide data to the alignment framework between data management and information-driven business goals. UDM stands vindicated and holistic only when the unified data framework caters to the strategic business goals of the enterprise.

What does an efficient UDM framework look like?

1. UDM is a best practice framework for data integration of enterprise wide data
 - It enables coordination among data management teams of varied skillsets (Data quality/ integration/governance/Master Data Management (MDM) etc.) leading to a common solution for the data and development standard, common data dictionary across data platforms, and interoperability of data management solution
2. UDM is a solution framework, not a specific tool
 - It leads to optimized team structure with reduced tool landscape through decommissioning of the redundant toolset of same capability, thus saving cost
 - Different tools holistically can cater to the individual subsets of the UDM like Data Quality, DI, MDM, Data Governance, Business Intelligence (BI) etc.
 - DI tool vendors are coming up with an integrated toolset for supporting UDM holistically. They are bringing together multiple tools in the packaged offering - each tool catering to each of the UDM subset as mentioned above.
 - For being an efficient UDM platform, the toolset must have servers interoperable during code deployment, must have shared development artifact (Metadata, master data, data model, data dictionary etc.)
 - It is ideal to have a common GUI for accessing all the tools of the packaged offering though it is not mandatory.
 - Business gains by removing the duplicate toolset for same activity and selecting a single solution covering entire data transportation task thus reduction in the cost of license procurement and renewal
3. Adoption of UDM framework is benefit driven
 - There will always be prioritized selection of data management practices into the UDM based on the business insights the resultant integrated data is bringing and thus assisting in achieving the relevant business goals
 - Organization may or may not feel the need to coordinate its entire data management work through UDM from the start
 - Organization starts with selecting the processes in pairs like data quality and integration; data governance and MDM
 - Gradually more data management processes are incorporated into UDM by evaluating the increased benefit it brings to table hence finally resulting in the broader spectrum
4. UDM can be a discreet program in the data consolidation part of a company or it can be included as a subprogram for a larger program of IT landscape centralization, application rationalization, enterprise data catalogue building, and IT-to-business alignment

- UDM process can be managed within a broader BI-DW program and can also be included into the operation part of data management like database administrator, DI

5. UDM integrates data as well as teams

- From technical level, it consolidates the enterprise wide data into a centralized data repository
- From people's process level, it lays the framework for collaboration among teams of individual source systems and can finally lead to a leaner, efficient and consolidated team, like a data COE

What does UDM enable?

- Access to unified view of enterprise wide data- enabling business insight and trend analysis
- Alleviation of DI tool redundancy- improved management of license procurement and renewal process, and code deployment and maintenance framework
- Optimization of disparate DI teams into a trim Data COE across an organization – better team management and delivery

- Coordination of different business segments to use unified data analogy across the organization resulting in prevention of data duplicity and inconsistency

- Reduced CapEx and OpEx

Conclusion

UDM is the driver of success for the organization that wishes to benefit from the enormous dataset (master and transactional) being hosted in any of its larger application landscape. UDM brings to the table business insights of the enterprise data by consolidating, integrating and standardizing the data across disparate and sometimes, siloed systems. It also drives business goals and contributes in the success of data-driven business initiatives (including BI, CRM, legal and regulatory compliance). It also lays down the platform for people optimization by consolidating multiple data management teams into a single and leaner data competency team, thus saving the OpEx of the company.

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