



## INTEGRATION OF MASTER DATA WITH ENTERPRISE SYSTEMS

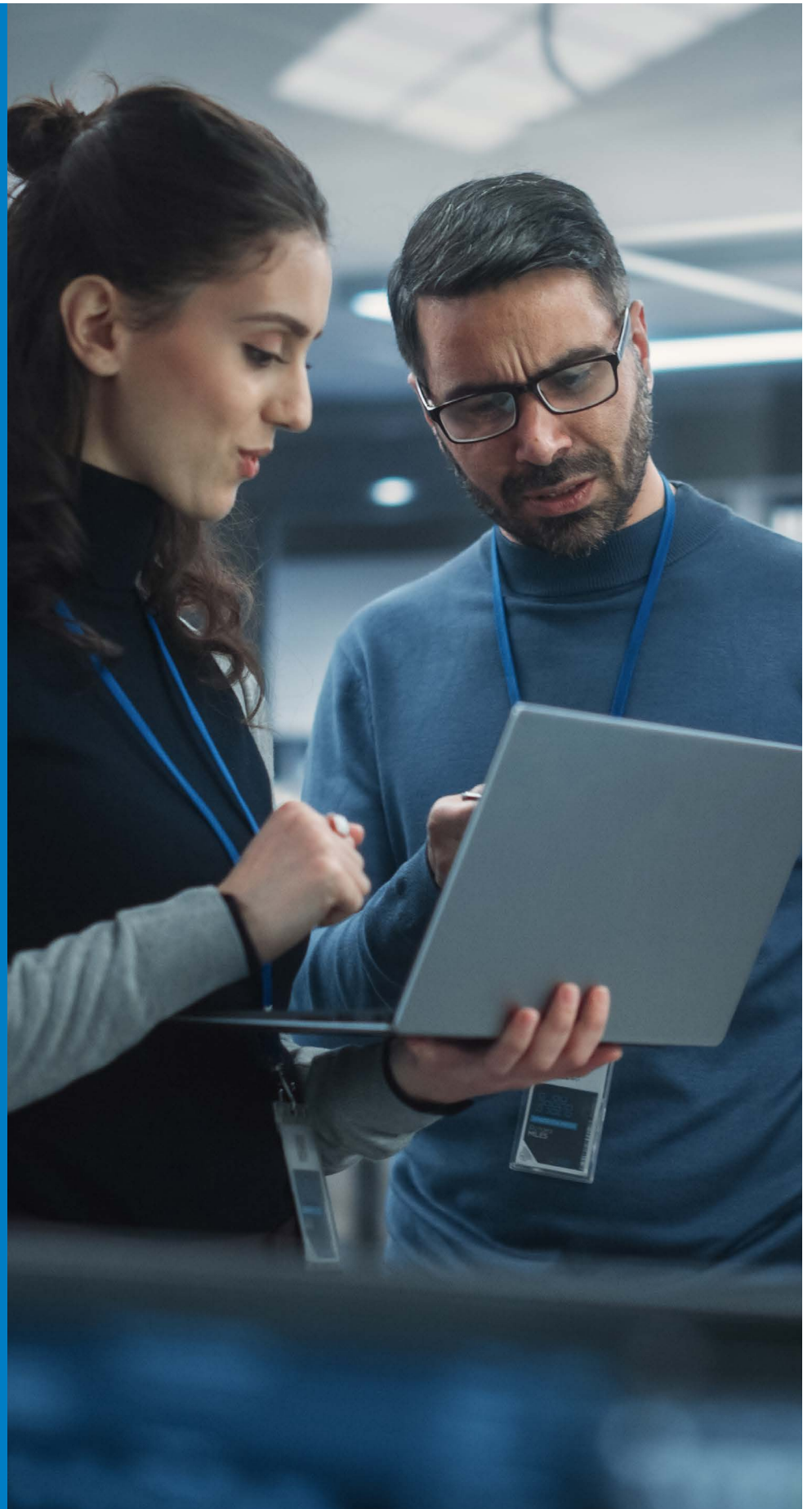
### Abstract

Integrating master data with enterprise systems has become integral for organisations operating in today's data-driven landscape and wanting to maximise the utility of their data assets. Effective enterprise data management and integration can offer numerous benefits, including informed decision-making, improved efficiency, and enhanced customer experiences. Leveraging MDM services can help you overcome common MDM integration challenges like poor data quality, governance gaps, and data silos to ensure seamless data integration and a sustainable competitive edge in today's dynamic data economy.

With the humongous volumes of data businesses must deal with daily, developing strategies to collect, organise, store, manage, and use this data well has become one of the top priorities for modern businesses. Enterprise data management, or Master Data Management (MDM), takes centre stage when strategizing how a business deals with its data, laying the foundation for data-driven decision-making and enhanced operational efficiency.

The key pillars that support enterprise data management include data governance, data quality, data integration, data security, metadata management, and data lifecycle management. Although each data management pillar plays a crucial role in fostering a data-driven culture, MDM data integration is fundamental to getting a holistic view of organisational data, from internal operations and stakeholder interactions to market trends and customer expectations.

Let us delve deeper into what integration of master data with enterprise systems entails, the key benefits and challenges of MDM integration, and the best practices to ensure smooth enterprise data integration.



## Understanding enterprise data integration

Enterprise data integration or MDM integration refers to the process of combining data from different sources within a company – various departments, enterprise systems, and stakeholders – into a cohesive and holistic view of the organisational data. This becomes crucial for companies looking to integrate their enterprise systems into a single platform and leveraging the collective data assets and intelligence to foster a data-driven organisational culture.

Organisations often use different facets of the same data for different purposes. For example,

- The marketing department can use it to understand their behaviour and build targeted campaigns.

- The finance department may forecast revenue and track customer lifetime value with it.
- The sales department may use it to tailor sales pitches and product recommendations and improve conversion rates.
- The product development department could identify areas of improvement based on feedback and purchase patterns.
- The customer service department can use it to offer personalised assistance and improve resolution rates.

No matter the use, it is crucial to ensure that everyone has access to the same information to ensure transparency and informed strategic decisions. Enterprise

data integration makes it possible whether a company is using a single unified platform or different enterprise systems. As a result, you can improve productivity and efficiency while reducing costs and lowering the risks of missed data and delays.

The goal here is to break down silos, improve overall data quality, facilitate data-driven decision-making, and enhance the customer experience. The pillars of MDM data integration that support these goals are:

- [Data quality](#) management framework
- Integration method
- Real-time data processing
- Security and compliance

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## Key benefits MDM integration offers

Data integration is one of the first steps in enterprise data management and enterprise systems integration. It brings numerous benefits to organisations looking to leverage their collective data assets to streamline their operations, promote data-driven decisions, and improve customer experience.

The key advantages of MDM integration include:

### [Enhanced decision-making](#)

MDM integration offers a comprehensive outlook on business operations, performance indicators, customer behaviours, and market trends, resulting in well-informed and timely decisions.

### [Better performance efficiency](#)

Data integration automates data collection, organisation, and storage while improving accessibility and reducing manual efforts and associated errors. This can not only

help save hours every week but also enhance overall performance efficiency.

### [Lower costs](#)

Integrated and centralised data management eliminates redundant data storages and data silos, minimising costs associated with IT infrastructure, operations, and maintenance.

### [Enriched customer experiences](#)

With an integrated data landscape, you have a 360-degree view of your customer's journey. This allows you to build personalised marketing strategies and product recommendations, enhance product offerings tailored to customer needs, and add a personal touch to customer services for an overall enhanced customer experience.

### [Data consistency and quality](#)

With standardised data formats and streamlined data workflows that come

with MDM integration, you can improve data consistency and quality, which in turn contribute to effective analytics, operational processes, and cost savings.

### [High scalability](#)

A robust enterprise data integration framework facilitates scalability, accommodating new data sources and handling increasing data volume as the business grows and operational needs evolve.

### [Easier collaboration](#)

With enhanced accessibility that comes with data integration, cross-functional teams can share data easily, fostering a collaborative work environment where every department can learn from each other and be more efficient.

## Common integration challenges

Many organisations consider integrating master data with enterprise systems only a technical problem. Although there are technical challenges in enterprise data integration, it is more of a strategic challenge that must be solved while considering who data owners and consumers are, what your data processes are, and what you expect out of your data journey.

Looking at both the strategic and technical aspects of data integration, here are five common challenges to overcome during MDM integration:

### Poor data quality

Maintaining data quality is one of the biggest challenges in MDM integration, resulting from data entry errors, inconsistencies, or duplication. This can lead to inaccurate insights, sub-optimal decisions, and lost opportunities. Regular data audits, standard data collection and

verification procedures, and regular data cleansing can help you overcome these issues.

### Lack of data governance

Without a robust data governance framework in place, businesses cannot ensure the ethical, secure, and accurate use of the data available to them. Although establishing data governance policies is complex and time-consuming, investing in effective governance tools can help ensure effective and streamlined data governance.

### Data integration complexities

Data integration is inherently complex due to the different data structures and formats across multiple sources, platforms, legacy systems, and third-party applications. As a result, it can become cumbersome to integrate data. Leveraging MDM services to establish a standardised data integration approach can help you overcome this challenge.

### Data security and privacy compliance

Data security compliance is an integral part of MDM integration. In addition to protecting organisational data from unauthorised access and theft, organisations must also comply with regulations like GDPR and CCPA. Investing in data security tools (encryption, access controls, and firewalls) can help overcome this challenge.

### Siloed data

The traditional approach to keeping data in departmental silos is perhaps the biggest hurdle in enterprise data integration. It can lead to inefficient processes and compromised productivity. Working on establishing a centralised data repository – accessible to all – is the first step in overcoming this challenge.



## MDM integration best practices

Although challenging and complex, MDM integration is essential for businesses wanting to leverage data and not just survive but thrive in today's data economy. Investing in the right MDM services can help ensure efficient enterprise data integration and management.

Here are some best practices that can help you ensure effective MDM data integration:

### Identify the data sources

The first thing you need to do is identify data sources—different enterprise systems, applications, and databases—establish a standardised data format, and determine

the frequency of updates.

### Define data governance policies and procedures

Data governance is the cornerstone of an effective MDM system. You need to establish data governance policies and protocols — including data ownership,



quality standards, and privacy and security guidelines — to ensure reliable, accurate, secure, and ethical access to, storage of, and use of enterprise data.

Using data governance policies as a foundational framework, the next step is to establish data handling and governance procedures, including data extraction, mapping, transformation, and analysis. Additionally, you must also define clear roles and responsibilities for different team members responsible for data integration.

#### Ensure data quality control

To overcome the critical data quality challenge, you must establish robust data quality controls – including data validation, profiling, cleansing, and enrichment. Establishing data quality metrics can

help you monitor and track data quality over time. MDM services can help you access tools to ensure data quality while establishing processes for data access control, data lineage, and data usage tracking to establish an auditable data quality trail.

#### Implement change management

Enterprise data integration is continuously evolving as business needs change, or the business grows. Therefore, it is essential to establish effective change management policies and change tracking processes to ensure that changes do not impact data quality.

#### Continuous monitoring

MDM integration is not a one-and-done process. Continuous monitoring is a critical

part of enterprise data management, requiring continuous tracking of data quality, lineage, and access.

As the volume, variety, and velocity of data continue to increase – and businesses look for new ways to harness the prowess of data – enterprise data integration and management will be the key to gaining and sustaining a competitive advantage. Leveraging MDM services, along with cloud-based and AI-powered enterprise data management solutions, will be the key to maintaining data quality and governance while maintaining data security and privacy.

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## Conclusion

The bottom line is that integrating master data with enterprise systems is a must for businesses wanting to maximise their data assets in today's data economy. As a foundational step in enterprise data management, MDM integration can offer benefits like informed decision-making,

improved efficiency, and enhanced customer experience.

However, it also comes with challenges like poor data quality, lack of data governance, siloed data, and data integration complexities. Adopting data integration best practices can help overcome these

challenges, helping organisations not just survive but thrive in the dynamic data economy. Investing in the right strategies, technologies, and [MDM services](#) is the key to unlocking the full potential of your data assets and maintaining a competitive edge.

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