SAP Solution Brief
SAP Solutions for Enterprise Information Management | SAP Master Data Governance

# **Master Data Fuels the Intelligent Enterprise**





Market leaders are moving to digital business to capture emerging opportunities in real time. Intelligent enterprises use their data assets effectively to achieve the desired outcomes faster – and with less risk. To regulate the lifeblood of a new IT landscape. organizations need a rigorous system of master data governance for seamless integration and quality control. And they must be able to move to the cloud incrementally at their own speed while maintaining consistent master data governance across lines of business.

Consistent master data fuels operational excellence. Clean master data helps ensure that client applications collect and deliver complete, accurate transactional data to construct a 360-degree view of each domain. Trusted master data fuels cross-functional analytics to drive performance management and business decision-making. Integration of master data with high-volume unstructured data and machine data is critical to understand real-world performance and opportunity. Audit trails of financial data across functional boundaries support compliance with government and industry regulations.

SAP Solution Brief

The SAP® Master Data Governance application provides ready-to-run, domain-specific master data governance, so you can locally own and consolidate or centrally create, change, and distribute master data across your enterprise system landscape. Tight integration with other SAP solutions in a suite-based approach supports the reuse of data models, business logic, and validation frameworks. And the application makes possible open integration to third-party products and services in your diverse technology stack and offers a cloud edition for hybrid and cloud systems.

Achieve Information Excellence **Through Master Data Governance** 

# **Master Data Consolidation and Central**

# Governance

SAP Master Data Governance supports master data consolidation and central governance scenarios in a single application (see Figure 1).

You can eliminate data silos by consolidating master data stored and maintained in SAP software and third-party sources. You can process master data from cloud and on-premise sources, standardize it, and detect duplicates and put them in match groups. For each match group, the application builds a best record using fields from multiple source records based on survivorship rules. You can then replicate the validated best records back into the transactional applications or to a data warehouse to help improve business process efficiency and business analysis.

The application supports centralized creation and maintenance of master data. This helps automate governance by controlling data quality at the point of authorship. By integrating data governance into business processes, you can help ensure that duplicate checks and field validations are performed before a new record is created.

Standardized and automated workflow routing and notification help ensure participation from the right people at the right time, and they increase overall productivity. Version control and an audit history improve transparency and help ensure policy and regulatory compliance. In addition, role-based data access helps enforce security policy, even on mobile devices

# Master Data Consolidation and Central Governance

Replication and Syndication

Data and Process Quality Management

Multidomain, Multivector Master Data Management

Figure 1: Typical Approaches to Master Data Management

LoB procurement LoB finance

Other LoB

Systems under central governance

Consolidation with SAP® Master Data Governance Consolidate master data into a single view for accurate analytics and operational insight (continuously or on request, for example, for initial load or mergers and acquisitions)



Central governance with SAP Master **Data Governance** Create master data in line with business processes (for example. integrated product development or supplier management)

## Master Data Consolidation and Central Governance

Replication and Syndication

Data and Process Quality Management

Multidomain, Multivector Master Data Management

Federated Master Data Governance

# Systems not under central governance



Reporting and analytics







LoB - Line of business

PLM - Product lifecycle management

# **Replication and Syndication**

Once you have validated and approved master data, the application can distribute it to an SAP or third-party software system, so you no longer need to perform manual maintenance multiple times in different systems. A wide array of movement mechanisms is supported, including Web services, application link enabling, remote function calls, and file transfers, and orchestration is independent of the mechanism used. The application keeps track of what data needs to be distributed where and what has been distributed successfully, or not, at the level of master data object. Target systems can subscribe to the distribution of master data based on filter criteria and delta tracking, which enables tailored selection of master data for specific applications.

SAP Master Data Governance also uses key and value mapping to support scenarios where the same master data object is used in different systems with different identifiers. You use key mapping when the primary key for a supplier is different in various systems. Key mapping helps ensure that you know which primary keys represent the same thing in different systems. You use value mapping when codes in master data attributes are different among systems. Value mapping helps ensure proper translating when you are distributing master data between systems.

Master Data Consolidation and Central Governance

### **Replication and Syndication**

Data and Process Quality Management

Multidomain, Multivector Master Data Management

Robust quality management in SAP Master Data Governance lets you define, validate, and monitor domain- and process-based business rules. Machine learning accelerates the development of data-quality rules. In collaboration with stake-holders across your enterprise, you define the scope of master data to consider, and the engine automatically discovers appropriate new rules quickly and efficiently – including some you might not spot on your own.

You can check quality proactively on entry – automatically validating supplier addresses or enriching vendor tax codes, for example – to minimize the downstream costs of bad data. You can assess data quality with dashboards to help you monitor such elements as key process

indicators, trends over time, or the distribution of errors along various domains or dimensions. And you can prioritize quality initiatives by impact and business value.

You can define service-level-agreement metrics for monitoring master data processes and activities and for issuing notifications when thresholds are crossed. You can perform root cause analysis by drilling down from aggregated metrics to individual objects, change requests, workflow steps, and roles. You can compare processes across organizational units, master data domains, change-request types, and time frames. Such analysis helps identify inefficiencies that cause backlogs, so you can improve business outcomes.

Master Data Consolidation and Central Governance

Replication and Syndication

#### **Data and Process Quality Management**

Multidomain, Multivector Master Data Management

SAP Master Data Governance supports a variety of master data domains, business processes, and implementation styles, as shown in Figure 2. It reduces the total cost of owning data by serving as a single application for your diverse master data management needs. For example, you can reuse components across processes and manage cross-domain intersections with integrated data models. Ultimately, a single solution helps speed implementation, reduce administrative costs, and facilitate knowledge sharing across projects.

SAP Master Data Governance accelerates time to value with the use of prebuilt data models, business rules, workflows, and user interfaces

and roles, so you can quickly deploy tasks such as financial consolidation, customer service, and supplier onboarding. You can tailor the prepackaged content or create completely new content to address specific needs. In addition, SAP offers a broad range of professional services designed to speed implementation, maximize ROI, and help ensure your success with SAP Master Data Governance. These include strategy, architecture, and scoping workshops, implementation services, and user training, all based on the experience and best practices that come with serving more than a thousand production customers.

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Multidomain, Multivector Master Data Management

In tune with an internal push toward producing suite-based software in a one-domain paradigm, SAP has a deep understanding of the use of master data in the context of business-led integration scenarios. SAP Master Data Governance provides interfaces based on a process choreography for integration in a heterogeneous system landscape.

There are ready-to-run integration capabilities for SAP applications and open interfaces for other solutions within your technology stack. The application also synchronizes master data across on-premise and on-demand solutions, supporting your organization's transition to the cloud.

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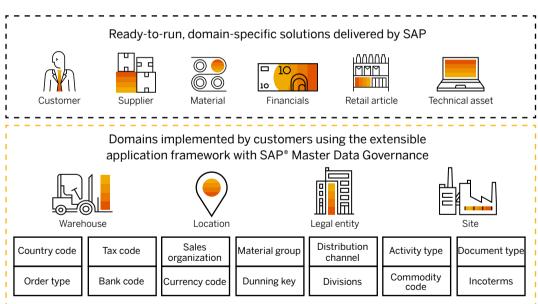
Federated Master Data Governance



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Achieve **high-performance data processing** on a highly scalable platform that supports cloud and on-premise master data replication.

Figure 2: Support for Master Data Domains, Business Processes, and Implementations



Master Data Consolidation and Central Governance

Replication and Syndication

Data and Process Quality Management

## Multidomain, Multivector Master Data Management

In a federated network of master data governance systems, each member has stewardship of a different set of attributes. The central system manages core attributes and then syndicates them to local systems. Receiving systems manage the application-specific attributes, so companies can harmonize master data enterprise-wide while also managing local details exactly where they're best understood – without introducing awkward point-to-point connections. Master data management then meets central corporate needs while also helping local units run their assigned businesses optimally.

The federated landscape can also lower costs by accelerating time to value. For example, in landscapes with heterogeneous SAP S/4HANA®

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instances for various lines of business, federation sidesteps difficult up-front harmonization by applying governance within local contexts. Local master data management systems can manage their own governance needs and reuse existing applications in their landscapes.

SAP Master Data Governance, cloud edition encourages a hub-and-spoke federation that helps you initiate an incremental approach to enterprise-wide federation of master data governance. The software itself offers a rich set of core attributes and built-in federation to the business partner domain using the SAP Master Data Integration service.

Master Data Consolidation and Central Governance

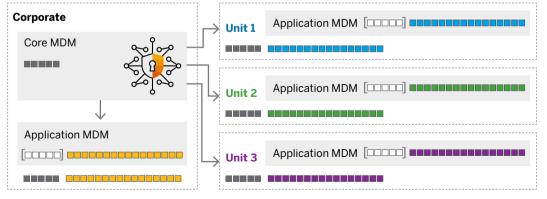
Replication and Syndication

Data and Process Quality Management

Multidomain, Multivector Master Data Management

If you are just beginning your journey in master data management, SAP Master Data Governance, cloud edition can act as an accelerant. You can work incrementally toward enterprise-wide federation that harnesses master data in the service of real-time adaptation to market change, tighter operations, better customer service, and shorter innovation cycles. Figure 3 illustrates the federated model for master data governance.

Figure 3: Balancing Core and Application Attributes in a Federated Model



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# **Realizing the Benefits**

With SAP Master Data Governance, you can gain a single trusted view of your data and address digital, analytical, and operational challenges head-on. SAP Master Data Governance enables you to:

- Drive data consistency enterprise-wide by consolidating and managing master data across the business, whether information is exchanged and accessed in SAP or third-party solutions
- Improve the speed and accuracy of business processes and analytics by automating the task of maintaining and distributing master data, integrating data more tightly, and increasing

data quality and consistency

- Decrease risk and simplify compliance with regulations such as International Financial Reporting Standards and Generally Accepted Accounting Principles through a governed master data process with auditable data, data changes, and audit trails
- Reduce the total cost of owning data when you can support your master data domains in one application and implement it in an on-premise, cloud, or hybrid environment

Realizing the Benefits



Support both consolidation and central governance to help your organization simplify management and gain a **single trusted view of your data**.

Gain a single trusted view of your data and address digital, analytical, and operational challenges head-on. The SAP® Master Data Governance application helps simplify enterprise data management, increase data accuracy, and reduce your total cost of ownership with a single solution that facilitates consolidation and central governance.

## **Objectives**

- Help ensure consistency of master data across your organization
- · Improve data analysis and insight
- · Simplify and streamline business processes
- Automate and centralize master data maintenance in on-premise, hybrid, and cloud systems

#### Solution

- Consolidation and central governance of master data
- Automation of the replication and syndication of master data throughout the system landscape
- Measurement, monitoring, and improvement in master data quality and processes
- One application for enterprise master data management

#### **Benefits**

- Increase data consistency across the enterprise
- Improve speed and accuracy of business processes and analytics
- · Reduce risk and simplify compliance
- Lower the total cost of owning data

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