IT Practice Data Unification

Applies To:

IT Practice Data Unification

Summary

Misaligned master data materializes throughout all departments and organizations within a company – and so does consolidated and synchronized master data. Using Data Unification, companies can maintain master data integrity throughout the entire value chain.

Data Unification is one of a total of 10 IT Practices within SAP NetWeaver with which SAP describes its IT solution offerings based on strategic enterprise questions.

By: Christian Behre and Markus Ganser

Company: SAP AG

Date: 29 March 2006

IT Practice Data Unification

Table of Contents

Data Unification as Strategic Enterprise Goal

Data Unification	With SAP NetWeaver, IT organizations can ensure that all master data, including user-defined data and data related to customers, suppliers, and employees, is accurate, free of duplicate records, and normalized. Internal and external users and applications have unparalleled flexibility in accessing a single version of the truth.

If you look at the critical enterprise data, you will quickly notice two important categories: on the one hand the transactional data, such as orders, and on the other hand the master data or reference data on which this transactional data is based. Most prominent examples are products, customers or suppliers. It is precisely this master data whose reference character represents a significant factor in the value chain of an enterprise with an immense potential for cost saving – it is important that this data be considered to be a real asset within the enterprise. Unfortunately the dynamic environment of many enterprises in combination with a restricted IT budget results in master data information being redundant, inconsistent and of varying quality. This problem is often amplified by mergers und acquisitions.

Consistent and up-to-date master data as a result of data quality, synchronization and organizational measures permit efficient business processes. The knowledge of this data is mission-critical within the enterprise and is the basis of central decisions. In this context we would like to quote Joe DeZarn, Marketing Communications Director at Rubbermaid Commercial Products, one of the first SAP NetWeaver MDM customers, from an interview with Line56, in which he considers SAP NetWeaver MDM as a "source of truth". We would also like to add that the "MDM success isn't simply a question of technology. It's about changing your organizational approach to data as well", as Demir Barlas, the interviewer from Line56 puts it (see the complete Line56 article at http://www.line56.com/articles/default.asp?articleID=7444&TopicID=1).

This shows that the quality of the master data has a great effect on the total value of an enterprise. A quick and precise answer to the questions "What are my products?", "Who are my customers?", "Who are my suppliers?" is of strategic importance and can result in the decisive competitive advantage. Whether it is a matter of optimizing the acquisition costs, identifying new cross sales possibilities or efficiently creating product catalogues, these are all examples in which effective data unification leads to success and can be the decisive competitive advantage. With the IT Practice „Data Unification", SAP NetWeaver in a flexible, innovative IT environment, satisfies the challenge of ensuring consistent master data within an enterprise and at the same time cross-company.

What is the Effect of Data Unification in the Enterprise?

Of course the effects of data unification depend on the concrete standards that an enterprise already reached with regard to data quality and unification. As a result, different areas of handling can be identified and prioritized.

Certain points of emphasis can nevertheless be pinpointed.

Optimization of the acquisition process is often a motivating force behind data unification. Supplier data that was not harmonized product categories that were not harmonized, and reporting that was not consolidated result in a poor negotiating position when drawing up a contract. As long as I need to ask my supplier what quantity of material my company buys from him, I will not be able to get an optimum price.

Another point of emphasis is the sales processes. A poor view on my customer base quickly results in my customer relationships not being optimally used and, for example, cross-sales opportunities not being recognized. For example you cannot sell the right insurance package if you cannot see that two customers are married. We also experienced companies that did not send Christmas cards so that their poor data would not be so evident.

In the area of R&D and Marketing it is usually easy to find processes that need attention. A delayed product introduction as a result of accessing obsolete data or faulty and inefficient creation of product catalogs is a typical result of poor data unification.

The effects are also noticeable on the managerial level. Managerial decisions that are based on obsolete or unconsolidated data are frequently suboptimal.

Once the problem has been pointed out, it is usually easy to find ways to save costs. The basic questions here are:

- What does the system landscape look like?

- Which business processes have the greatest optimization potential?

- Is it due to inconsistent data?

- Are evaluations used to check business processes for their efficiency and effectivity?

Ideally the results are:

- Much more efficient business processes

- Increased customer satisfaction

- Knowledge lead that puts you in an advantageous bargaining position for strategic purchases

- Lower TCO, simplified system landscape, lower maintenance costs (system and data maintenance)

SAP and a growing number of consulting partners offer QuickScan methods to identify areas of action and to determine potential.

How does SAP NetWeaver Help to Unify Data?

SAP NetWeaver supports you with your data unification by providing a scenario-oriented procedure and a model-driven architecture.

IT Practice	Description	IT Scenarios
Data Unification	Ensure that all master data is accurate, free of duplicate records, and normalized.	• Master-Data Harmonization • Master-Data Consolidation • Central Master-Data Management • Enterprise Data Warehousing

A starting scenario in the area of data unification is master data consolidation, with an emphasis on detecting possible duplicates and identical objects and creating ID mappings. The knowledge gained about the data and in particular the ID mapping is provided in subsequent processes, such as consolidated reporting.

With the master data harmonization scenario, you can synchronize central data contents – that is globally relevant data - based on these results. For example, all occurrences of a customer can be assigned a correct and unified address.

Another scenario, central master data management, enables you to centralize the master data maintenance processes. It optimally supports for example Shared Service Centers in this area.

These scenarios form the basis for additional application scenarios, such as Global Data Synchronization – that is data synchronization across enterprise boundaries, Rich Product-Content Management – the effective management of product catalogs, and Customer Data Integration which is focusing on a consolidated view on customer data.

The last scenario, Enterprise Data Warehousing, emphasizes the preparation of analysis data and completes the set of IT Scenarios for data unification.

The majority of these scenarios are based on SAP NetWeaver Master Data Management (MDM) as a core technology component of SAP NetWeaver. The different scenarios enable you to scale your use of MDM starting with a mostly independent standalone engine – for example when initiating a project or as a tool to support migrations – up to a deeply integrated component of the SAP NetWeaver platform including process integration, portal support, and reporting.

What are the benefits of using the specified scenarios in practice?

Considerable savings can already be attained by determining data redundancy – that is, by detecting duplicates. A concrete use of SAP NetWeaver MDM by a customer recently culminated in surprising results: A redundancy check of the supplier data used by the customer showed a degree of coverage of up to 35%. It was easy to detect this surprisingly high data redundancy using SAP NetWeaver MDM.

Another example is the cost saving in the area of printing. The conventional annual production of a printed tool catalog with 3000 pages can result in layout costs of 1 million Euro. Print costs of 30 Euro per copy and maintenance of a team of 50 employees cause additional costs. As a result, your product will require a large investment, be significantly error-prone, and be used just once.

Our solution for print catalogs brings a savings potential of 1 to 2 million Euro annually. In addition, the potential for error is eliminated right from the beginning due to data unification, and the result is not a one-time product. Its structure can be re-used, increasing the entire savings potential even further

How does Data Unification Work in an Enterprise Services Architecture?

The necessary evolution to a service-oriented architecture in a flexible enterprise environment with heterogeneous system landscapes marked by mergers and acquisitions assumes harmonization on master data level. Processes cannot successfully exceed application boundaries if you do not know how the key information about master data, such as customers or supplier IDs, units of measure, or addresses, should be translated and interpreted in these systems. Data unification and especially SAP NetWeaver MDM significantly support and speed up this process.
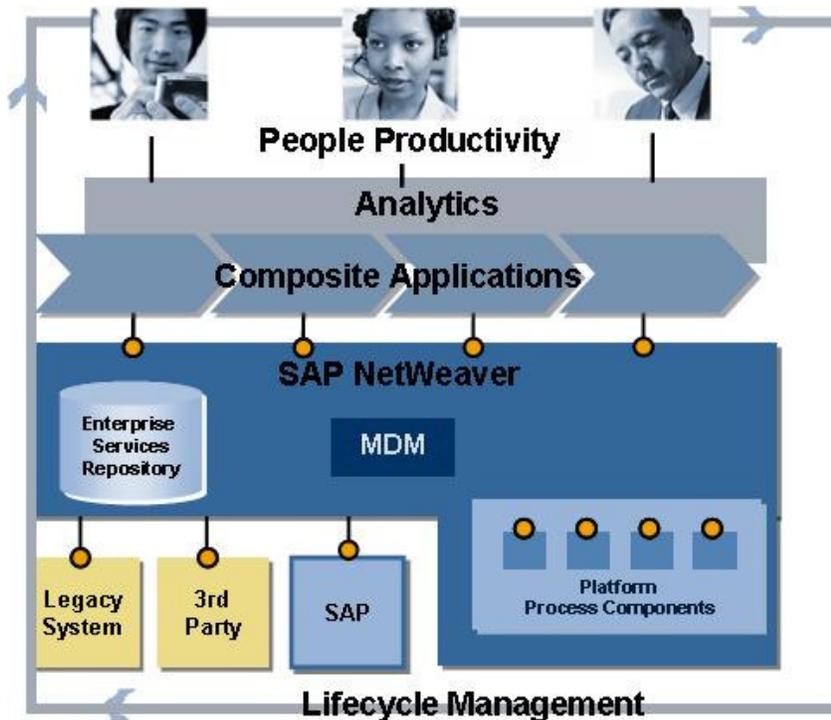

JP MORGAN CHASE is also of the opinion that it is hardly possible for companies to establish a service-oriented architecture without a master data management solution. I quote: "Without a Master Data Management (MDM) capability, we believe it will be challenging for any company to move to a services-oriented architecture."

What does this contribution to ESA look like concretely?

Of course using the above scenarios, you can indirectly influence a services-oriented architecture. Master data harmonization and thus the comparison of central master data content in system landscapes ensure that Enterprise Services access up-to-date and consistent data. Through ID mapping, much more direct support is possible, especially in heterogeneous environments by mapping data.
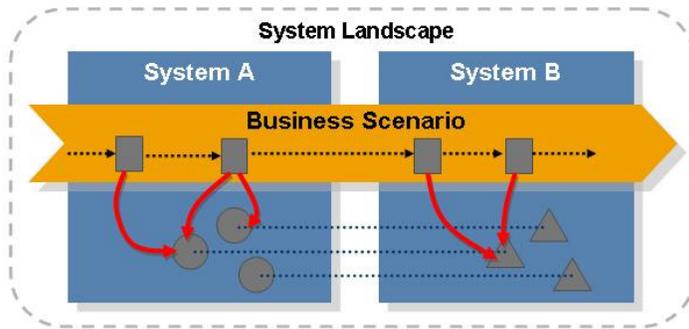
A business scenario is represented as a flow of business documents (transactional data)
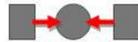
Many business documents are referencing master data

Business scenarios that are carried out beyond system boundaries need to reference the same master data representations through the process

Utility services based on MDM guarantee easy access to ID mapping information and thus to mapping mechanisms for Enterprise Services. This ensures for example that a credit standing review produces the right results, even if the customer exists in multiple systems with different IDs or possibly even as duplicates within these systems.

Take Away

Let's summarize with the following points:

- Data unification is a strategic company objective and ensures competitive advantages by more efficient business processes and a consolidated data foundation for better managerial decisions.
- SAP NetWeaver with the IT Practice "Data Unification" and the scenarios it contains provides the right tools to tap this potential.
- Data Unification and the related harmonization of master data is a prerequisite for moving to a service-oriented architecture.

Think about data unification in your company – it's worth it!

Author Bio

Christian Behre is the SAP product management lead for SAP NetWeaver Master Data Management.

Markus Ganser is product manager for SAP NetWeaver Master Data Management.

Disclaimer & Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.