



**Integrate and Deliver Trusted
Data and Enable Deep Insights**



The Best-Run Businesses Run SAP®

**Provide a wide-ranging view
of enterprise information**

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Accurate, trustworthy data helps organizations discover new insights and supports better decision making across the enterprise. SAP® Data Services software enables integrated data and near-real-time access, so you can **improve enterprise processes and performance**, identify and seize emerging business opportunities, and outshine the competition.

Digital information comes from a wide range of sources and continues to increase by leaps and bounds; realizing the potential of Big Data is no simple matter. You can gain better control over your enterprise information by building an agile and trusted data foundation that can rapidly respond to the demands of operational and analytical processes and solutions.

With such a foundation, you can overcome data integration challenges that include information silos, high data volumes, inconsistencies, errors, and duplications. You can integrate and provide access to structured and unstructured data – from sources such as e-mail, Web logs, social media, blogs, customer surveys, and other content – and provide a single, trusted source of information for people throughout the enterprise.



Integrate data from multiple sources in near-real time

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Provide fast, scalable access to data from any source

Extract and process data from unstructured documents

Load data rapidly into any targeted application

Data integration management functionality within SAP Data Services software enables organizations to extract, transform, and deliver any type of data anywhere, at any frequency. The software provides functionality for data integration, data quality management, data profiling, metadata management, and text analytics.

With the software, you can integrate data from a variety of data sources and gain a comprehensive view of your information. You can deliver

timely and trusted data and give business users access to a wide range of structured and unstructured data sources.

The unified software lets you integrate large volumes of data, extract relevant text, and perform contextual analysis in real time to uncover invaluable insights. It helps you improve performance and effectiveness and helps give your organization a competitive advantage.



Empower the business to understand and analyze how data quality affects enterprise processes and performance.

Continued on next page



Objectives

Solution

Benefits

Quick Facts

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The drag-and-drop user interface allows you to quickly build jobs that profile, validate, audit, cleanse, transform, and move data. Team-based development functionality lets users check work in and out of a central meta-data repository securely, share and version work to speed development, and compare differences between objects.

The software lets you perform a wide range of data transformations and choose from a library of powerful, extensible, and reusable functionality for operations such as:

- Hierarchical flattening for XML files and pipelining
- Pivot and reverse-pivot of rows and columns
- Slowly changing dimensions
- Change data capture
- Data validation and cleansing

Advanced debugging features allow you to analyze problematic data throughout the process, and automated functionality eliminates the need for manual documentation. Data profiling functionality helps ensure quality by making clear the content, structure, quality, and relationships between tables in your source data.

Data validation functionality builds a firewall between your source and target systems, so you can filter out unwanted data based on your business rules. During the extract, transformation, and load (ETL) process, the software can audit data to verify its integrity and cleanse data of any operational domain, such as customer, product, or service.



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Drawing on SAP Data Services software's powerful, comprehensive data integration functionality, your organization can access and integrate data from any structured or unstructured source. The software enables you to design an efficient and reliable data integration process, so you get a wide-ranging view of your enterprise information.

The software scales to allow you to integrate vast volumes of data. It supports efficient read, write, and processing functionality with the Apache Hadoop data store, and it enables near-real-time data movement, parallel processing, grid computing, and broad source and target support. Developers can submit queries against an Apache Hive data warehouse to search for and filter data in Hadoop before it is extracted and loaded into the SAP HANA® database or the enterprise edition of SAP IQ software for deeper analysis.

Bulk-loading functionality lets you replicate millions of records quickly into the SAP HANA database by setting up the connection between target and source, selecting the required tables, and executing the move with a single mouse click.



Provide trusted data for confident decisions.

Continued on next page



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Benefits

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SAP Data Services eases demands on IT and business users by enabling you to deploy the software quickly. A single graphical interface supports an intuitive development environment where you can handle all tasks associated with building a data integration process.

The software maximizes integration performance by moving processing to the database layer whenever possible – including into SAP HANA – to take advantage of in-memory

transformation processing and performance. ETL functionality lets you quickly extract and load data into your target system.

For example, the software can use your database server to aggregate functions at the source level without moving the data to a central database or the target system. By distributing processing to source systems, the software minimizes unnecessary data movement across your network and optimizes integration performance.

Get up and running quickly with preconfigured software and implementation services with SAP HANA Cloud Integration technology.



Extract and process data from unstructured documents

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Native text data processing functionality allows you to extract and process data from unstructured documents in near-real time – or at any interval you choose. SAP Data Services can natively read, write, and process data in SAP Adaptive Server® Enterprise and SAP IQ. And developers can submit text data processing operations as Apache Hadoop MapReduce functions to provide structure to unstructured data.

With its text data processing feature, SAP Data Services not only extracts content from unstructured data sources – it also understands the context of those data elements. For example, the software understands that “Abraham Lincoln” could be a person’s name, and it also knows that the name refers to a U.S. president. The ability to understand the phrase and apply correct context to the data

element is critical to accurate downstream analytical activities.

The software also can interpret the sentiment represented by key phrases found within unstructured data sources – such as whether a piece of text includes strong positive or negative statements.



Eliminate the need for point solutions and other data management tool vendors.



Load data rapidly into any targeted application

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SAP Data Services can load data rapidly into any database, business intelligence (BI) tool, or application. It integrates the ETL process with your data warehousing BI solution to enable metadata management, simplify and unify administration, improve lifecycle management, and reduce maintenance costs.

The software connects natively with virtually any database type or using open database connectivity (ODBC) middleware. You can connect to your data whether it resides in a relational database, mainframe system, or enterprise application.

SAP Data Services software's open, services-based architecture supports integration with flat files and third-party products, using industry-standard protocols that include the following:

- Common Warehouse Metamodel (CWM)
- Extensible Markup Language (XML)
- Hypertext Transfer Protocol (HTTP) and HTTP Secure (HTTPS)
- Java Message Service (JMS) application programming interface (API)
- Simple Network Management Protocol (SNMP)
- Web services

You also can use a Java software development kit (SDK) to connect with proprietary applications.

Continued on next page



Objectives

Solution

Benefits

Quick Facts

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SAP Data Services can automatically create and update the semantic layer in SAP BusinessObjects™ BI solutions to accelerate business intelligence deployment and simplify change management. The software shows how a change in source data can affect downstream processes and systems through metadata analysis.

SAP Data Services offers smooth integration with metadata from SAP BusinessObjects BI solutions. This integration provides end-to-end

impact analysis that allows you to see the effect of changes in the source systems down to the BI reports. As a result, you can more easily manage change in your entire ETL and business intelligence environment.

Metadata integration and data lineage functionality enables you to view the context of data contained in reports. You can see when data was updated, how it was computed, and where it came from – all the way back to the original transactional source.

Improve efficiency and productivity by making data available 24x7 in near-real time.



See how your business benefits

See how your business benefits

SAP Data Services enables you to integrate data from multiple sources for a unified view of your enterprise information. The software lets you deliver accurate data quickly. You can harness the power of Big Data by integrating large volumes of data, extracting relevant text, and performing contextual analysis.

This means that you can gain new and hidden insights and gain significant competitive advantage by harvesting information that was previously out of reach. Optimizing analysis across

all of your enterprise information assets supports confident, near-real-time decision making.

A single, trusted view of your information and faster access to all data sources facilitates compliance and governance. Native integration with other key SAP solutions facilitates rapid implementation and helps get you to market faster. And the software has the flexibility to suit your needs with a wide variety of packaged adapters for databases, data warehouses, and data stores.

Improve customer service by transforming unstructured text from incoming e-mails into actionable information.





Objectives

Solution

Benefits

Quick Facts

Summary

SAP® Data Services software integrates structured and unstructured data from multiple sources and provides a single view of enterprise information for deeper insights and better decision making. The software helps you profile, extract, transform, and deliver data in near-real time to business users across the enterprise. The software can be deployed quickly so you can get up and running and seize the valuable opportunities of Big Data.

Objectives

- Integrate structured and unstructured data from multiple sources
- Accommodate the large volumes and tap into the opportunities of Big Data
- Provide a single, trusted source of data for people throughout the enterprise

Solution

- Comprehensive functionality for efficient, reliable data integration
- Extract, transform, and load (ETL) functionality for moving and integrating data in near-real time
- Push-down ETL functionality to take advantage of the SAP HANA® database
- Big Data support for moving and loading data to and from solutions such as Apache Hadoop data store

Benefits

- Gain deeper insights and competitive advantage by harnessing the power of Big Data
- Support real-time decision making by optimizing analysis across information assets
- Go to market faster with simplified deployment

Learn more

To find out more, call your SAP representative today or visit us online at www.sap.com/eim.



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