IBM Information Server: Expanding the scope of SAP NetWeaver Business Intelligence

Highlights

- ***Helps to understand, map and integrate data from external systems into the SAP NetWeaver® Business Intelligence (SAP NetWeaver BI) component***

- ***Cleanses and de-duplicates data into a single analytical view within SAP NetWeaver BI***

- ***Accommodates tight batch windows while handling the massive volumes of data typically found in enterprise systems***

- ***Makes it easy to visually design complex load logic into and out of SAP NetWeaver BI***

Complete business intelligence for SAP customers

Business intelligence continues to be a major area of investment for IT organizations. Industry analysts estimate growth rates for business intelligence in the range of six to eight percent, and it remains one of the highest rated focus areas in IT surveys. SAP NetWeaver BI provides a ready-made extension to SAP® R/3® and SAP ERP software, making it a very attractive business intelligence option for SAP customers.

However, implementing and deploying SAP NetWeaver BI requires a big investment. As with any change in IT infrastructure, organizations undertake business intelligence projects because they believe the business benefits delivered by SAP solutions will outweigh the cost of implementation. Leaving important operational information out of an SAP NetWeaver BI data warehouse can jeopardize this return on investment and affect the quality of business decisions, leading managers to make decisions based on incomplete information.

These decisions can ultimately impact the perceived value of an SAP NetWeaver BI implementation. Therefore it is critical that a complete view of the enterprise is available inside SAP NetWeaver BI—all relevant data sources, even those not associated with SAP software, must feed their data into the warehouse. The problem is that there is no easy way to do this when an infrastructure contains non-SAP data sources without writing a lot of ABAP™ programming language code.

IBM® Information Server provides a proven foundation for helping companies expand the scope of SAP NetWeaver BI by accelerating the integration of non-SAP data codelessly into SAP NetWeaver BI at a very low total cost of ownership.

Expanding the scope of SAP business intelligence

Business intelligence initiatives typically seek to answer questions that are vital to sustaining, optimizing and growing the business, such as:

- *Can your organization isolate and measure leading indicators of success and risk?*
- *Can you measure your entire relationship with a customer? A supplier?*
- *Do you understand your best—and worst—customers on an enterprise level?*
- *Does your organization share the information necessary to enable cross-selling and up-selling?*
- *Is there a common definition of key performance measurements in the organization?*

Why expand the scope of SAP NetWeaver BI to include non-SAP data?

- *Reduce business intelligence application proliferation*
- *Reduce number of applications to maintain*
- *Reduce cost of ownership*
- *Facilitate top-level query response*
- *Increase ability to respond to business needs and changes*
- *Provide access to all relevant data*
- *Help ensure business intelligence application performance*
- *Deliver answers in a timely manner*

To effectively answer these questions, a business intelligence application must include data from all relevant operational sources. The value of information for business decision making is directly related to the quality and completeness of that information. Unfortunately, even organizations that standardize on SAP software typically have important, relevant data managed in non-SAP systems. These organizations often spawn external business intelligence implementations to deal with the data, leading to a proliferation of information silos. These silos prevent a single overarching view of business intelligence across the organization.

The external implementation approach creates a higher cost of ownership, because more software, hardware and people are needed to build and maintain these environments. In addition, business goals of complete and accurate information are never met since information located in different silos cannot be analyzed in the same place at the same time.

The ideal scenario for most organizations is to expand the footprint of SAP business intelligence by incorporating non-SAP data into the SAP NetWeaver BI environment.

Achieving a single view of business intelligence in SAP NetWeaver BI
SAP provides tools to easily move data to SAP NetWeaver BI from other SAP software, including SAP R/3 and SAP ERP, but loading data from non-SAP systems still requires extensive ABAP coding. To ease the loading process, IBM Information Server includes pre-built connectors to SAP NetWeaver BI from many types of data sources, including leading enterprise applications such as those from Oracle, Siebel and PeopleSoft. These connectors allow codeless, visual design of data flows into and out of SAP applications.

IBM Information Server complements SAP NetWeaver BI by helping customers graphically connect to complex heterogeneous operational data sources and create reusable mappings and transformations to convert the data into SAP NetWeaver BI target objects. IBM Information Server supports complex data formats and facilitates loading non-SAP data into SAP NetWeaver BI through packaged connectivity to competing enterprise applications.

This capability enables SAP NetWeaver BI to be used as an enterprise data warehouse by including more data that can support additional users across an organization. The IBM WebSphere® DataStage™ Pack for SAP BW provides graphical connectivity to SAP NetWeaver BI that makes it easy to stream data into the warehouse. The Pack adds SAP-certified integration to IBM Information Server and supports the latest version of SAP NetWeaver BI (SAP NetWeaver 2004s). The Pack also supports extracting information from SAP NetWeaver BI via open hub services, so SAP NetWeaver BI data can be used in downstream targets.

IBM Information Server provides:

- *Simple, graphical and packaged loading of non-SAP data into SAP NetWeaver BI via business application programming interfaces*
- *Non-SAP metadata importing, including creation of InfoObjects, InfoSources, InfoPackages and source systems*
- *Scalable performance for increasing data volumes*
- *In-line data cleansing and de-duplication*
- *Unicode support*
- *Extract capabilities from SAP NetWeaver BI for use in datamarts, data warehouses, reporting applications and other downstream targets*
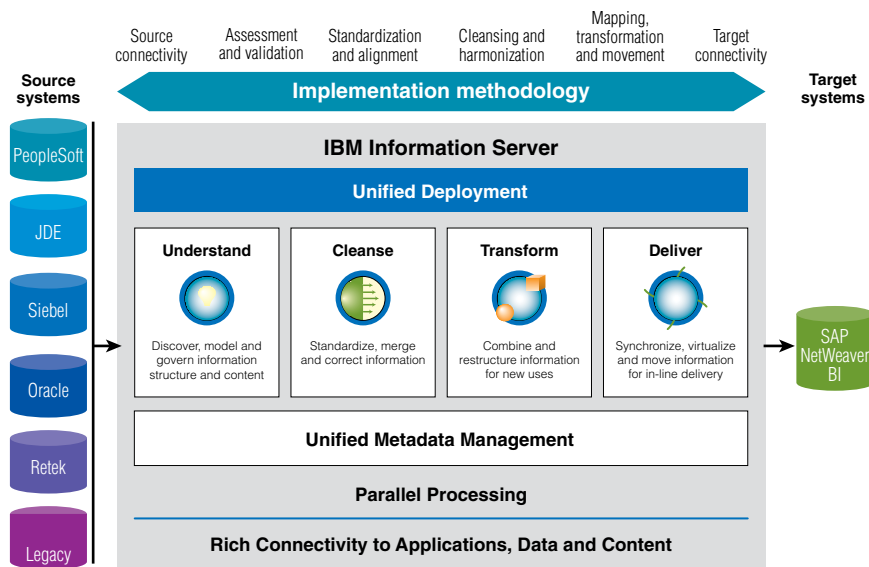
Figure 1. IBM Information Server supports a complete methodology and best practices for loading non-SAP data into SAP NetWeaver BI

Reducing the cost of integrating external information

Whenever information is integrated from disparate sources, a great deal of complexity is involved. Information from different systems is rarely aligned properly, and data quality and redundancy issues abound. Integrating external data sources into SAP NetWeaver BI poses many of the same challenges—challenges that initial implementations of SAP software often face as well.

To ease information integration, IBM provides a complete methodology and best practices for loading non-SAP data into SAP NetWeaver BI (see Figure 1). This methodology is supported and automated by IBM Information Server, which provides a

platform for understanding, cleansing, transforming and delivering information from across a heterogeneous IT landscape.

The data loading process begins with understanding non-SAP data sources by profiling source data, analyzing column content and data structures, and providing integration recommendations. Next, it progresses to cleansing data, standardizing and correcting data elements, and matching records across and within systems. From there, the data can be transformed and integrated into SAP NetWeaver BI. All of this is done using a unified platform with visual tools that help enable collaboration across IT and business domains.
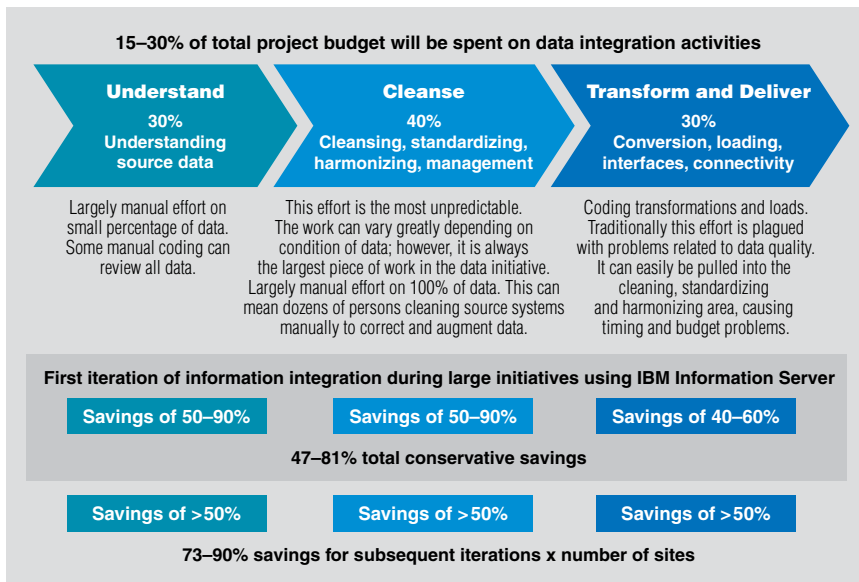
15–30% of total project budget will be spent on data integration activities

Understand	Cleanse	Transform and Deliver
30% Understanding source data	**40%** Cleansing, standardizing, harmonizing, management	**30%** Conversion, loading, interfaces, connectivity

Largely manual effort on small percentage of data. Some manual coding can review all data.	This effort is the most unpredictable. The work can vary greatly depending on condition of data; however, it is always the largest piece of work in the data initiative. Largely manual effort on 100% of data. This can mean dozens of persons cleaning source systems manually to correct and augment data.	Coding transformations and loads. Traditionally this effort is plagued with problems related to data quality. It can easily be pulled into the cleaning, standardizing and harmonizing area, causing timing and budget problems.

First iteration of information integration during large initiatives using IBM Information Server

Savings of 50–90%	Savings of 50–90%	Savings of 40–60%

47–81% total conservative savings

Savings of >50%	Savings of >50%	Savings of >50%

73–90% savings for subsequent iterations x number of sites

Figure 2. Information integration using IBM Information Server can lead to significant project savings

This approach mitigates a multitude of risks by providing an end-to-end infrastructure that helps enable the discovery of data quality issues early in the project life cycle. It also provides an automated process for system data integration and a scalable platform for extracting and loading data into SAP NetWeaver BI for interfaces based on both batch and real-time transactions.

By identifying and documenting unique data definitions, data quality issues and business rules early in the project, implementation teams can more accurately design and configure the target application and provide accurate cleansing and data migration specifications for data consolidation and integration.

When organizations apply this approach to SAP NetWeaver BI implementations, they can experience project savings of up 81 percent versus hand-coded solutions (see Figure 2).

IBM Information Server delivers trusted information

Organizations face an information challenge beginning with locating information, getting it when it is needed in the form needed, and once it is found, discerning further insights from it. Information validity and control are additional concerns. The challenges only mount if businesses cannot ensure access to authoritative, consistent, timely and complete information.

IBM Information Server is a revolutionary new software platform that helps you derive more value from the complex, heterogeneous information spread across your systems. It enables your organization to integrate disparate data and deliver trusted information wherever and whenever needed, in line and in context, to specific people, applications and processes. It helps business and IT personnel collaborate to understand the meaning, structure and content of any type of information across any source. It provides breakthrough productivity and performance for cleansing, transforming and moving this information consistently and securely throughout the enterprise, so it can be accessed and used in new ways to drive innovation, increase operational efficiency and help lower risk.

For more information

To learn more about IBM Information Server, contact your IBM marketing representative or IBM Business Partner, or visit **ibm.com**/software/data/integration

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TAKE BACK CONTROL WITH Information Management