

IBM DB2 Near-Line Storage Solution for SAP NetWeaver BW

Help boost SAP NetWeaver Business Warehouse performance and reduce costs without sacrificing data access



Highlights

- Reduce costs by moving infrequently used data to cost-effective systems
 - Deliver fast access to archived data within a near-line storage environment
 - Simplify management with seamless integration between IBM® DB2® and SAP NetWeaver BW
 - Improve performance on the reduced data set for frequent jobs
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SAP NetWeaver Business Warehouse (BW) is a vital tool for organizations that need to transform vast quantities of data into actionable intelligence. But customer growth, rising numbers of transactions and the incorporation of new types of data can create excessively large online SAP NetWeaver BW databases that slow query responses, increase management complexity and add costs. Organizations need ways to streamline the online database without giving up easy access to data.

The IBM DB2 Near-Line Storage Solution for SAP NetWeaver BW is designed to accommodate data growth while enhancing the performance of your online database, reducing costs and retaining fast access to information. Through a close, long-standing partnership, IBM and SAP have produced a fully integrated solution that enables you to deploy and manage a near-line storage environment without adding complexity.

Facing the challenges of explosive data growth

Volatile data growth can significantly impact the performance of your SAP NetWeaver BW implementation. As the volume of information in the online database swells to tens of terabytes, query response times increase, sapping employee productivity and discouraging decision makers from conducting potentially valuable analyses.

Data growth also translates into added costs. To support an expanding database, IT groups often buy more servers, storage and network components, and IT personnel spend more time managing databases and systems than contributing to strategic projects.



Many organizations could benefit from moving historical and infrequently used data out of their online SAP NetWeaver BW databases to archival systems. Data that is several years old and accessed only a few times per year does not need to reside in databases that use high-performance hardware and high-availability solutions. Yet IT administrators are reluctant to archive data because archival systems make it difficult and time-consuming to retrieve information.

Overcoming hurdles with near-line storage

By creating a near-line (or “near-online”) environment, the DB2 Near-Line Storage Solution for SAP NetWeaver BW provides a middle ground between online and traditional archival systems. Administrators can move infrequently used data out of the online database to a separate database, reducing the size of the online database and consequently boosting its performance. At the same time, keeping data in a DB2 database enables organizations to capitalize on DB2 management capabilities; users can access information in the DB2 database more quickly than if the data was archived in another file system or on tape.

From delivery and installation to ongoing management and technical support, the DB2 Near-Line Storage Solution is fully integrated into SAP NetWeaver BW. For both administrators and users, the solution helps to deliver a seamless SAP NetWeaver BW experience.

Simplifying management with tight integration

Administrators can create the near-line environment rapidly using only the SAP installation tool. They then add a near-line storage connection to the SAP NetWeaver BW system and create a data archiving process for each InfoProvider. Administrators can select particular objects to be moved or

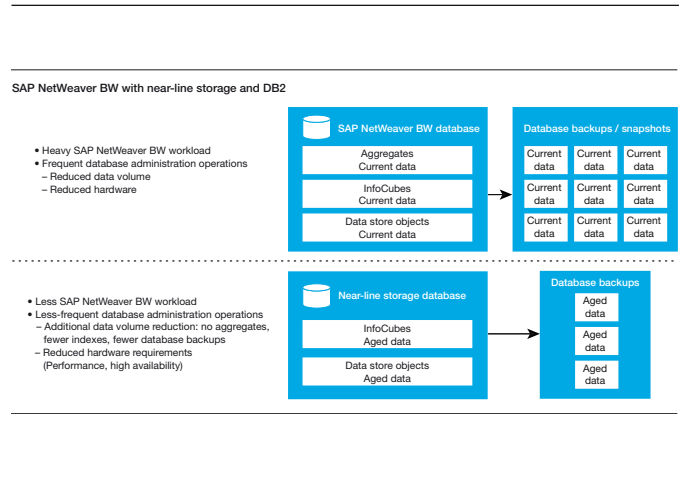


Figure 1: Near-line storage can help improve performance while reducing costs by decreasing the storage capacity required for online systems and minimizing administrative operations.

set rules based on age of data, product group or other criteria. Through the archiving interface, data can be transferred to the near-line environment, the traditional archival system or both—simultaneously. The entire process can be automated to further simplify management.

Data stored in the near-line database is read-only. To enable modification of the data, administrators simply reload the data into the online SAP NetWeaver BW system and then transfer data back to the near-line system after changes are made.

For those and all other tasks, no specialized IT skills are required—administrators can draw on existing skills for managing SAP NetWeaver BW and DB2 environments. The ability to automate tasks and use remote management capabilities through the SAP DBA Cockpit helps ensure that the near-line environment will not add IT complexity. If additional support is required, organizations can rely on standard SAP NetWeaver BW on DB2 support channels.

Increasing online performance

By moving infrequently used data out of the online database, the DB2 Near-Line Storage Solution for SAP BW can help significantly increase performance of the online system.

Reducing the size of the online database can accelerate data load times and query results while also speeding up frequent maintenance tasks, such as backing up data and taking snapshots.

The solution also brings proven DB2 capabilities to the near-line environment. These capabilities, such as automatic storage, self-tuning memory management, index and row compression, Multi-Dimensional Clustering (MDC) and the Database Partitioning Feature (DPF), help enhance database efficiency, facilitate scaling and optimize performance.

Reducing costs

By moving data off of the high-performance—and high-cost—systems often used for running SAP NetWeaver BW, the near-line storage solution can help organizations significantly decrease costs. Keeping only recent, frequently used data in the online database helps you avoid purchasing more and more hardware to stay on pace with data growth. Administrators can deploy the near-line storage environment using more cost-effective servers, storage and networking since users do not need instantaneous access to that historical data. Using DB2 Compression technology in the near-line environment helps control costs by minimizing the storage capacity required even as the database volume grows. Sub-capacity pricing also allows cost-effective DB2 licensing solutions.

Creating a near-line environment also can help reduce management costs. Typically, the information stored in a near-line system does not have the same availability requirements as the data kept in an online system. As a result, administrators do not have to back up that data as frequently or take continuous snapshots. Because they can send data to the traditional archival system at the same time as the near-line environment, administrators can keep data well protected without excessive manual intervention.

Accelerating access to information

Moving infrequently used data to traditional archiving environments can deliver some similar performance and cost benefits as the near-line solution. But once data is moved to those archival environments, access to information is limited. A query that takes only seconds in the online system might take much longer in an archived environment because archival tapes must be mounted and data must be reloaded to read all the information needed.

With the DB2 Near-Line Storage Solution for SAP BW, users continue to have transparent access to the data in the near-line storage database. They access data in that near-line database the same way they would access data in the online SAP NetWeaver BW database and experience only slightly longer query times. As a result, users can work with even infrequently used data to generate new business insights.

Providing options with flexible implementation

While this solution uses DB2 for the near-line environment, it can be deployed even if you currently use a different database platform for SAP NetWeaver BW. The DB2 Near-Line Storage Solution for SAP BW gives you the flexibility to capitalize on near-line storage without forcing you to upgrade or modify your existing environment.

IBM also offers an appliance-based version of this solution with the IBM InfoSphere™ Balanced Warehouse® C-Class system. This complete, preconfigured solution is designed to help small and midsize organizations capitalize on a robust business warehouse solution while minimizing configuration and management requirements.

Delivering business intelligence

DB2 Near-Line Storage Solution for SAP NetWeaver BW can help you accommodate fast-rising volumes of data while improving performance, reducing costs and simplifying access to information. Delivered as part of SAP NetWeaver BW and available at no cost for organizations who purchase DB2 through SAP, this solution provides a simple way to combine the power of SAP NetWeaver BW and DB2 to deliver effective business intelligence.

For more information

To learn more about the DB2 Near-Line Storage Solution for SAP NetWeaver BW, please send email to the IBM SAP International Competence Center at isicc@de.ibm.com, or visit ibm-sap.com/db2 and sdn.sap.com/irj/sdn/db6



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