

· Adhere to regulations

Risk Mitigation

Compliance

Why Integrated Data Management Now?

Everybody is looking to do more with less. Even when the global economy is strongly performing, maintaining budgets and controlling costs is important. In a difficult economy like we are facing today, every investment needs to be critically scrutinized, and every cost controlled.

Data-driven applications are the backbone of ongoing business operations. Though critical, these applications and their infrastructure are equally subject to enterprise-wide budget constraints. Getting the most out of this investment is crucial to overall business success. IBM Optim Integrated Data Management solutions allow enterprises to minimize to costs of data management, reduce risks of operations and maximize the performance of these applications.

IBM Helps Solve the Pressures on Business Today Simplification of Infrastructure **Data Governance**

Business Growth

 Increase revenue Retain customers

New markets

- Reduce cost
- Reduction of overhead
 - Retirement/Consolidation

Centralization of services

Solutions for Performance Optimization

Optim Data Growth Solution

New lines of business

Control database growth at the source, by applying best-practice database archiving capabilities

By implementing archiving to segregate current from historical transactions and moving the data to a secure archive, you can effectively maintain application databases at a manageable size.

- Archiving is an intelligent process for moving inactive or infrequently accessed data that still has value, while providing the ability to search and retrieve the data
- Define criteria to segregate historical transactions and safely move them into a secure archive .
- The average production database is replicated on average 12 to 15 times for non-production uses. By archiving you immediately reduce your overall storage footprint
- Apply cost-effective tiered storage strategies
- Maintain archived business records in an historical reference snapshot format .
- Manage application data at the business object level, like payments, service orders or shipments .
- Respond quickly and accurately to audit and e-discovery requests
- Streamline upgrade projects and safely retire obsolete, redundant or de-supported applications
- Apply a single, scalable enterprise data growth management solution across applications (Oracle E-Business Suite, PeopleSoft Enterprise, Siebel, JD Edwards EnterpriseOne, AmdocsCRM), databases (DB2, IDS, Oracle, Sybase, SQL Server, XML) and platforms (Windows, Unix/Linux, z/OS)

Optim pureQuery Runtime

An innovative approach to building high quality, better performing database applications

Optim pureQuery Runtime accelerates new or existing Java applications, even those applications in which the SQL is generated by a framework, such as Hibernate or OpenJPA. Give DBAs the ability to optimize and lock down SQL without modifying the application. Provide the information necessary to quickly trace SQL back to its source.

Improve quality of service for new and existing Java applications

- Improve performance
- Speed up problem resolution
- Improve impact analysis and capacity planning •

Enhance security

- Limit user access using "Principal of Least Privilege"
- Minimize SQL injection risk
- Improve audit readiness
- Reduce time to market for new Java applications
 - Bridge Java and data
 - Tune before deployment •
 - Enhance developer and DBA collaboration
- Reduce costs
 - Increase system throughput ٠



DB2 Performance Expert and Extended Insight Feature

Meet SLAs using in-depth database monitoring, problem isolation, and trend analysis

DB2 Performance Expert helps optimize the performance and availability of DB2 and resolve performance bottlenecks before they affect your business

Monitor

- Set thresholds that reflect service level objectives
- Monitor database activity, internal resources, and end-to-end response time
- Alert warning and critical levels

Respond

- Visualize emergent bottlenecks or end-to-end response time
- Drill-down into problem detail
- Identify problem application and SQL

Plan

- Analyze historical trends
- Optimize for increased capacity
- Project capacity growth requirements

Optim Query Tuner and Optim Query Workload Tuner

Monitor and tune workloads and queries to optimize application performance

Maximize application performance, reduce specialized skill requirements, and reduce the total cost of ownership of dataservers. Optim Query tuning offerings can provide expert recommendations to improve performance for a single query or workload.

Reduce costs

- Increase overall system capacity
- Reduce chargebacks
- Simplify analysis for DBAs, developers, designers, and others
- Improve statistics collection efficiency
- Reduce time to respond

Optimize performance

- Improve customer satisfaction
- Improve organizational productivity
- Satisfy service level objectives
- Fit workloads into maintenance windows

Solutions for Accelerating Solution Delivery

Optim Test Data Management Solution

Streamline Test Data Management to improve application quality, cut IT costs and accelerate solution delivery Using subsetting capabilities creates "right-sized" test and development databases, reducing significant data overhead, and facilitating better test and development environments.

- Deploy new functionality more quickly and with improved quality
- Apply selection criteria to ensure complete test coverage
- Edit data within its relational context to create error and boundary conditions
- · Compare baseline data against successive test run results to identify errors and improve application quality
- The average production database is replicated on average 12 to 15 times for non-production uses. By subsetting you significantly reduce your overall storage footprint
- Consolidate data from multiple interrelated applications to create a "production-like" test environment that accurately
 reflects end-to-end business processes
- Save data extracts to quickly and easily refresh test environments
- Apply a single, scalable enterprise test data management solution across applications (Oracle E-Business Suite, PeopleSoft Enterprise, Siebel, JD Edwards EnterpriseOne, AmdocsCRM), databases (DB2, IDS, Oracle, Sybase, SQL Server, XML) and platforms (Windows, Unix/Linux, z/OS)





InfoSphere Data Architect

Improve staff productivity, data governance, and business alignment

A collaborative data design solution to discover, model, relate, and standardize diverse and distributed data assets.

Increase efficiency and reduce time-to-market

- Increase understanding of current data assets
- Model data assets, automate and validate data design tasks
- Increase collaboration

Increase data quality, enterprise consistency, and governance

- Support business and IT collaboration
- Define, analyze and enforce compliance to enterprise standards
- Feed privacy policies to downstream tasks

Maximize model value across lifecycle

- Rational Align across process, service, application and data
- Optim Manage data from requirements to retirement
- InfoSphere Align business and IT for trusted information
- Industry Models Leverage years of IBM industry experience

Optim Development Studio

Speed data access design, development, and deployment while increasing data access efficiency and performance

Optim Development Studio improves development productivity up to 50% for developing and testing SQL and XQuery queries, stored procedures, Web services, and Java data access layers.

Enhance developer productivity

- Develop, test, and run queries, procedures, and functions.
- Generate Java data access layers
- Identify application hot spots
- Analyze impact of changes
- Analyze use of sensitive data
- Enhance problem isolation

Provide expert-equivalent performance

- Use JDBC and SQL data access best practices
- Replace problem SQL without opening the application
- Use DB2 static SQL for performance and manageability

Optim Solutions for Data Privacy and Security

Optim Data Privacy Solution

De-identify confidential information in non-production systems to protect privacy and support compliance initiatives

Corporations must protect all sensitive information, whether it resides in a production system, a development database, or anywhere else within organizational boundaries.

- Apply a range of masking techniques to transform personally-identifying information and other confidential corporate data
- Leverage prepackaged data masking routines to transform complex data elements such as credit card numbers, email addresses and national identifiers, while retaining their contextual meaning
- Substitute test environments with realistic, fictionalized data, creating a "safe sandbox" for application testing
- Consolidate and mask data from multiple interrelated applications to create a "production-like" test environment that
 accurately reflects end-to-end business processes
- Support compliance with privacy regulations such as HIPAA, GLBA, DDP, PIPEDA, Safe Harbour, PCI DSS and others
- Apply a single, scalable enterprise data privacy solution across applications (Oracle E-Business Suite, PeopleSoft Enterprise, Siebel, JD Edwards EnterpriseOne, AmdocsCRM, SAP), databases (DB2, IMS, VSAM/SEQ, Adabas, IDS, Oracle, Sybase, SQL Server, XML), and platforms (Windows, Unix/Linux, z/OS)



Database Encryption Expert

Designed to help organizations comply with regulations and legislative acts and ensure that private and confidential data is strongly protected.

Database Encryption Expert can protect sensitive information in both online and offline environments and has centralized policy and key management to simplify data security management.

- Minimize the risk of data on portable media
- Reduce the risk of replicated data being stolen or lost
- Limit privileged user access to sensitive data
- Maintain compliance with government data privacy acts and industry regulations (for example, PCI-DSS)
- Protect your data and help you avoid the negative impact of a data breach.

Solutions for Application Retirement

Optim Solution for Application Retirement

Access data long after retirement to meet compliance requirements

Over time, applications can outlast their value to the business, eventually costing more to maintain than they are worth. But companies are reluctant to retire obsolete, legacy, or redundant applications for fear they may someday need the underlying data. Optim makes application retirement easier and safer by providing the capability to archive data from decommissioned applications while providing ongoing access to the data for query and reporting. You reduce risk and cut cost, without jeopardizing data retention compliance.

- Application retirement doesn't have to mean disposing the data
- No data is migrated to a replacement application
- Archive entire application database
 - In a single process or series of data transformation processes
- Retire legacy application
- View or query returned application data and selectively restore as needed
- Apply a single, scalable enterprise data privacy solution across applications, databases (DB2, IMS, VSAM/SEQ, Adabas, IDS, Oracle, Sybase, SQL Server, XML), and platforms (Windows, Unix/Linux, z/OS)

Solutions for Database Administration

Optim Database Administrator

Manage databases and database changes without disruption

Optim Database Administrator improves productivity and reduces application outages for complex structural changes to streamline change-in-place and database migration scenarios.

- Manages changes while
- Preserving data, privileges, all dependent objects, and application binding
- Synchronizes, copies, clones, or merges database schema from the source to the target
- Migration from physical data models, live database connections, or from scripts Restart and partial undo to correct errors
- Documents changes for collaboration and audit
- Integrates with Rational



Optim High Performance Unload

Rapidly unload, extract, and repartition data across enterprise systems

Optim High Performance Unload is a high-speed utility for unloading, extracting, and repartitioning data in DB2 for Linux, UNIX, and Windows databases. Designed for ease of use, flexibility, and speed, Optim High Performance Unload helps businesses minimize impact to product systems, fit more into batch windows, accelerate database migrations, and simplify recovery.

Execute concurrently with production applications

Maintain system availability, but minimize duration of impact to production performance ٠

Reduce the risk of impacting online production

Fitting more work into tight or shrinking batch windows

Recover from single table failures or accidental table drops

Extract a single table from a backup for restoration ٠

Deliver the value of new hardware and software investments faster ٠

Speed up database migrations

Migrate data directly from one database to another

Eliminate need for intermediate storage

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