IBM Data Server Manager

Performance optimized

The rise in data volumes, resulting from growing use of cloud services and mobile applications, is forcing organizations to increase the efficiency of existing data management assets and employ more resources to better serve their customers. However, many in-house or multivendor data management tools lack end-to-end visibility, usability and scalability. They often struggle to keep workflows and analytics operating at optimum efficiency and are unable to provide the continuous availability needed for ever-increasing transaction volumes. With more application users, organizations must find ways to deliver both speed and analytical insights within today’s investment constraints and growth expectations.

IBM® Data Server Manager helps administer, monitor, manage and optimize the performance of IBM DB2® for Linux, UNIX and Windows databases. It also provides similar functions for IBM dashDB™, IBM BigInsights® Big SQL environments, and IBM DB2 for z/OS® databases across the enterprise. It gives database administrators (DBAs) and other IT staff the information they need to manage performance and prevent problems before they impact the business. Plus, it’s cloud-ready, designed to be deployed quickly and easily, and is part of a common management experience shared with dashDB.

Data Server Manager for a hybrid enterprise

Data Server Manager provides a single view across your hybrid data enterprise, back through time, and across your private and public cloud.

You can install Data Server Manager on a dedicated workstation, in your private cloud or on the public cloud. The single install can support all your users and your IBM data servers.

Highlights

• Accelerate your data management lifecycle with enterprise-wide infrastructure support
• Meet customer expectations with predictable database implementation
• Streamline monitoring and administration with a customizable dashboard
• Improve operational efficiency by tracking and configuring settings from virtually anywhere
Meet the needs of multiple roles to help speed the data management lifecycle

Online transaction processing (OLTP) and analytics processing share many common data management requirements and practices. However, they each have unique requirements for quality of service, backup and recovery, data ingest, data types and data volumes. Data Server Manager enables you to support growing infrastructure demands across both OLTP and analytics processing models.

Data Server Manager gives DBAs and system administrators a dashboard to manage alerts, diagnose problems, improve processing and throughput, and administer environments. In addition, the self-service environment offered by Data Server Manager gives business analysts and developers the capability to edit, validate and run SQL.

Data Server Manager helps you:

- Meet service-level agreements (SLAs) across OLTP and analytics environments and use cases
- Address developer, DBA and business user productivity requirements
- Enable enterprise IT to work with lines of business (LOBs) by sharing common processes and tools across roles
- Support hybrid data management deployment patterns, including private cloud, public cloud and on premises
- Support databases across DB2 for LUW, DB2 for z/OS, dashDB and BigInsights Big SQL

As deployment environments change—perhaps beginning in an LOB public cloud level, moving to enterprise IT and eventually to a private cloud—organizations can introduce Data Server Manager capabilities to customers through simplified dashboard environments. As the deployment evolves, they can extend to IBM Data Server Manager Enterprise Edition, increasing the breadth and depth of the tools to support enterprise-wide infrastructures.

Meet SLAs with predictable database execution

Addressing application and database performance is the cornerstone of creating a successful data environment. Data Server Manager gives you an intuitive visualization of the enterprise environment, augmented with user-configurable feedback and alerts. It can also guide you to identify, diagnose, solve and prevent bottlenecks to improve overall performance. See Figure 1. With this approach, Data Server Manager helps you manage the overall health of your application environment and maintain optimal performance levels to meet customer expectations.

![Figure 1. Realize continuous value through efficient management, predictable delivery and availability, and performance optimization.](image-url)

For example, Data Server Manager reports help you pinpoint costly queries that require tuning or indicate the need for improved capacity planning. You can view estimated performance improvements and use what-if analysis to test indexes virtually before creating them. Data Server Manager provides actionable, precise advice on shadow and column-organized tables, statistical views, materialized query tables (MQTs), multidimensional clustering and redistribution of data over database partitions. This approach to managing data helps your organization reduce the need to add specialized skills.
Reduce complexity with simplified monitoring and administration

Data Server Manager is designed to provide a simple, integrated web console that helps streamline the ongoing administration of complex database environments, including a DB2 database partitioning feature and IBM DB2 pureScale® topologies. The customizable dashboard puts you in control, allowing you to view and monitor multiple databases at a glance, isolate and analyze typical database problems and drill down for more details.

You can efficiently administer DB2, dashDB, and BigSQL databases, database objects and database instances using the enterprise-ready Data Server Manager infrastructure. Native support for column-organized tables helps save time while enabling you to take advantage of the breakthrough performance offered by DB2 with BLU Acceleration® technology. Enhanced navigational capabilities help you rapidly find relevant database objects to help simplify query building, editing, tuning and formatting. Configurable alerts and notifications allow you to react essentially immediately to new problems that can threaten system performance or availability.

The installation process gets Data Server Manager up and running quickly and efficiently. The lightweight installation eases administration, database exploration and real-time monitoring tasks while conserving storage. You can install it on a single notebook or on a central server for hundreds of users. The optional repository database allows you to record monitoring metrics for historical analysis, identify storage access patterns for capacity planning and track configuration changes for problem determination.

Data Server Manager helps keep your IBM data enterprise highly available. Deep monitoring of your DB2 HADR and DB2 pureScale clusters helps you determine if your highly available systems will operate correctly when you need them most. Data Server Manager detects the reasons you cannot fail over to a secondary HADR database. It alerts you before you need the secondary database in an emergency. You can also see the status and health of a whole DB2 pureScale cluster from single view and helps ensure you have enough members available when you need them most. Having a single view of the availability of your IBM data enterprise gives you peace of mind that you are ready for virtually any emergency.

“The reliability of DB2 is critical for Nordea. We rely on IBM Data Server Manager to monitor the hundreds of DB2 databases in our production enterprise. IBM Data Server Manager makes it easy to manage DB2 and keep our enterprise highly available.”

— Björn Söderlund, Nordea Bank AB, Senior IT Infrastructure Specialist, Application Service Owners

Target operational efficiency with scalable management

Data Server Manager gives you the power you need to support growing infrastructure demands, including the ability to scale up to hundreds of databases. Control capabilities help simplify the initial deployment of database servers and clients, and streamline ongoing change management. They also enable almost instant analysis and a comprehensive view of the data environment to help you uncover anomalies and identify trends.

To optimize storage requirements across the enterprise, while improving operational efficiency, Data Server Manager helps you find trapped storage, infrequently accessed objects and compression opportunities for static and dynamic memory. The ability to explore and track changes to database objects and configuration settings from virtually anywhere, any time allows you to continually enforce best-practice settings to address problems faster, avoid outages and improve change-management efficiency.
Data Server Manager helps automate data management, including:

- Sending automatic alerts based on your preset thresholds for certain trends and statistics
- Managing configuration change notifications
- Isolating misbehaving clients that can threaten system availability based on your predefined rules

Automated management of your data environment lets you focus on supporting the innovation your business demands, rather than spending time on routine administrative tasks.

**Why IBM?**

Instantaneous analytics and always-available transactions are essential for modern businesses. Data Server Manager, DB2, dashDB and BigInsights form an ideal foundation to deliver trusted, uninterrupted information throughout your information supply chain. The solution can help your organization optimize its data environments to consistently meet SLAs, control costs and keep customers happy with a fast, responsive user experience. IBM Data Server Manager Enterprise Edition is packaged with IBM DB2 Advanced Enterprise Server Edition, IBM DB2 Advanced Workgroup Server Edition and DB2 on Cloud Advanced Edition. Alternatively, you can acquire it as part of the IBM DB2 Performance Management Offering for use with other DB2 editions. In addition, it's packaged with BigInsights.

**For more information**

To learn more about IBM Data Server Manager, contact your IBM representative or IBM Business Partner, or see ibm.co/2YpE93. Data Server Manager Base Edition is available for download from IBM developerWorks® at no charge.