

The IBM big data platform

A large, stylized graphic of the letters 'IBM' in a bold, sans-serif font. The letters are composed of various shades of blue and cyan, with some areas appearing as solid colors and others as gradients or overlapping shapes. The 'I' is a solid dark blue. The 'B' is split vertically, with the left side in a medium blue and the right side in a lighter blue. The 'M' is split vertically, with the left side in a dark blue and the right side in a light blue. The overall effect is a modern, layered, and colorful interpretation of the classic IBM logo.

What is big data?

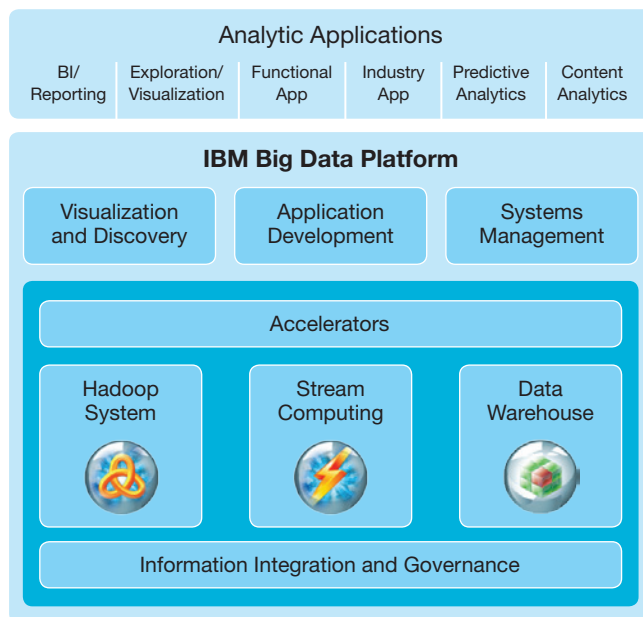
Every day we create 2.5 quintillion bytes of data—in fact, 90 percent of the data in the world today has been created in the last two years alone. This data comes from a wide variety of sources: sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and cell phone GPS signals to name a few. Big data spans three dimensions:

- **Volume**—Enterprises are awash with ever-growing data of all types, easily amassing terabytes and even petabytes of information.
- **Velocity**—For time-sensitive processes such as catching fraud, big data must be used as it is streaming into the enterprise in order to maximize its value to the business.
- **Variety**—Big data extends beyond structured data, including unstructured data of all varieties: text, sensor data, audio, video, click streams, log files and more.

The IBM big data platform

IBM® has developed a comprehensive, integrated and industrial-strength big data platform that allows you to address the full spectrum of big data business challenges. The four core capabilities of the platform include Hadoop, stream computing, data warehousing, and information integration and governance.

- **Hadoop**—Enables distributed processing of large data sets across commodity server clusters.
- **Stream computing**—Enables continuous analysis of massive volumes of streaming data with sub-millisecond response times.
- **Data warehouse**—Delivers deep operational insight with advanced in-database analytics.
- **Information integration and governance**—Allows you to understand, cleanse, transform, govern and deliver trusted information to your critical business initiatives.
- **Supporting platform services**
 - *Visualization and discovery*—Helps users explore large, complex data sets.
 - *Application development*—Streamlines the process of developing big data applications.
 - *Systems management*—Monitors and manages big data systems for secure and optimized performance.
 - *Accelerators*—Speeds time-to-value with analytical and industry specific modules.



Big data in action



Financial Services

- Risk & Fraud Management
- 360 Degree View of Customer



Healthcare/Life Sciences

- Medical Record Text Analytics
- Genomic Analytics



Telecommunications

- Call Detail Record Processing
- Customer Profile Monetization



Digital Media

- Real-Time Ad Targeting
- Website Analysis



Retail

- Omni-Channel Marketing
- Click-Stream Analysis



Law Enforcement

- Real-Time Multimodal Surveillance
- Cyber Security Detection



Energy & Utilities

- Smart Meter Analytics
- Asset Management



Transportation

- Logistics Optimization
- Traffic Congestion

IBM's big data products

- **IBM InfoSphere® BigInsights**—Enhances Hadoop with performance, reliability, security and administrative features, including a sophisticated text analytics module and IBM BigSheets for data exploration.
- **IBM InfoSphere Streams**—Supports ultra-low latency analytics on diverse data types, improving your organization's insights and decision making, and providing an opportunity to respond to events as they happen.
- **IBM Netezza®**—Delivers deep insights using advanced analytics in minutes not hours, on petabyte volumes of relational data.
- **IBM Smart Analytics System**—Provides a modular and flexible integrated system with data warehousing and analytics software, IBM server and storage optimized for operational analytics.
- **IBM InfoSphere Warehouse**—Supports operational analytics and applications with up-to-the-minute insights.
- **IBM InfoSphere Information Server**—Offers comprehensive data integration and data quality capabilities, to ensure delivery of trusted information to a wide variety of IT systems.

Why IBM?

Only IBM offers an enterprise-class platform that supports the full breadth of big data uses cases. The IBM platform has five distinct advantages:

- **Comprehensive platform**—A complete platform for managing and analyzing the volume, variety and velocity of big data.
- **Enterprise class capabilities**—Delivers the management, security, reliability and usability features necessary for large-scale deployments.
- **Analytic accelerators**—Analytic engines integrated and optimized for big data, and pre-built accelerators for industry-specific and cross-industry applications.
- **Visualization tools**—User tools to explore all available data for ad-hoc analysis.
- **Integration and governance**—Simplified integration of big data technologies into your IT architecture and ability to leverage big data as another source to enhance your strategic initiatives.

For more information

To learn more about the IBM big data platform solutions, please contact your IBM representative or IBM Business Partner, or visit the following website(s):

ibm.com/bigdata or bigdatauniversity.com for free online education.

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