



Organizations face an information challenge that begins with locating information, understanding what it means, and getting the information when it's needed in the form needed. Add to that the uncertainties of whether the information can be trusted and then, how to control it. The challenges only mount if businesses cannot ensure that they have 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 it's 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 information across any source. With breakthrough productivity and performance for cleansing, transforming and moving this information consistently and securely throughout your enterprise, IBM Information Server lets you access and use information in new ways to drive innovation, increase operational efficiency and lower risk.

### **IBM Information Server: A complete solution for multiple business goals**

A foundational element of enterprise information architectures, IBM Information Server is critical to helping businesses meet the demands of strategic business initiatives, arming your enterprise with accurate and consistent business insights that allow you to react competitively in the following areas:

- **Business intelligence** – With IBM Information Server, you can harness the power of structured and unstructured corporate data to gain a 360-degree view of customers, suppliers, partners and operations. Develop

*a unified view of your business, creating a solid, enterprise-wide understanding of existing data sources to support better decisions; cleanse, correct and standardize information, and load analytical views for reuse throughout the enterprise.*

- **Master data management** – Develop authoritative master data with IBM Information Server by enabling your organization to understand where and how information is stored across source systems. Consolidate disparate data into a single, reliable master record, cleansing and standardizing the information, removing duplicates and linking records across systems. With options for leveraging the

*data based on your organization's needs and initiatives, load the master record into operational data stores, data warehouses or master data application management infrastructures like IBM WebSphere® Customer Center, or assemble it on demand.*

- **Infrastructure rationalization** – IBM Information Server allows you to define migration rules for consolidating instances or moving data from obsolete systems to new applications and databases, letting you reduce operating costs by understanding relationships between systems. Within this process, data cleansing and matching ensures the highest possible data quality in the new system.

# Information Management Solutions

- **Business transformation** – *When it comes to strategic business initiatives, IBM Information Server can help your organization speed time to value by accelerating development cycles and increase business agility by providing reusable information services that can be seamlessly plugged into applications, business processes and portals. These standards-based services are centrally maintained by information specialists with a single point of maintenance, but are widely accessible throughout the enterprise.*
- **Risk and compliance** – *Reduce risk exposure while improving visibility and data governance with IBM Information Server. Define and maintain complete, authoritative and auditable views of information with proof of lineage and quality. These views can be made widely available and reusable as shared services, while the inherent rules are maintained centrally.*

## Derive more value from complex, heterogeneous information spread across systems

What strategic initiatives are in process at your organization? Enabling rapid response to new products and services opportunities, not to mention competitive threats? Building an agile enterprise capable of making decisions quickly, if not on the fly? Or does it involve creating an information infrastructure that delivers the right information in the right form at the right time to the right person? Perhaps it's all of these.

It's in response to these issues that IBM is introducing IBM Information Server. IBM Information Server delivers all the functions required to integrate, enrich and deliver information that you can trust for your key business initiatives. With rich functionality,

broad connectivity to heterogeneous sources, and a unified metadata-driven approach, it provides a strong foundation for enterprise information architecture.

## Understand your data

Helping you to understand and analyze the meaning, relationships and lineage of information, IBM Information Server enables discovery, definition and modeling of information content and structure. By automating data profiling and data quality auditing within systems, you can:

- *Create an understanding of data sources and relationships.*
- *Eliminate the risk of utilizing or proliferating inaccurate or inconsistent data.*
- *Improve productivity.*
- *Leverage existing IT investments while increasing capabilities.*

## Cleanse your information

IBM Information Server provides data cleansing capabilities that help ensure auditable data quality and consistency by standardizing, validating, matching and merging information to create comprehensive and authoritative information for multiple uses. Quality logic is designed visually and deployed universally, ensuring data consistency and accuracy across the enterprise. By improving the quality of information, your organization can:

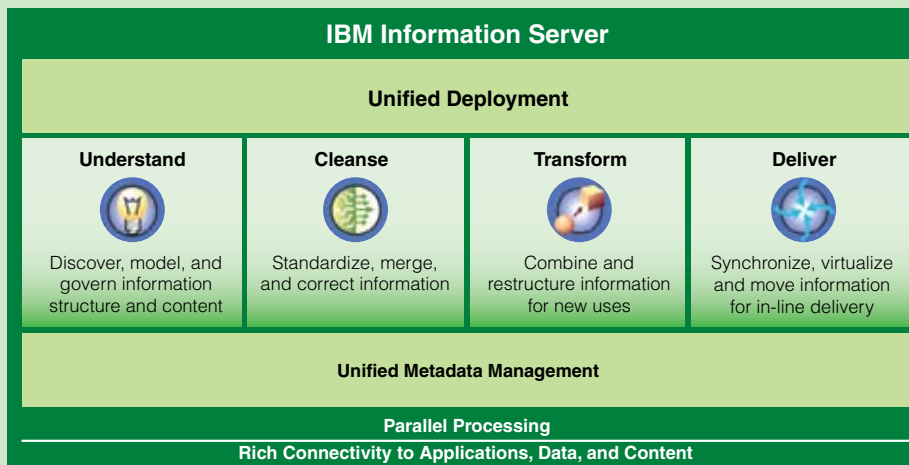


Figure 1: IBM Information Server helps integrate information for access and use in new ways to drive innovation, increase operational efficiencies and lower risk.



## IBM Information Server platform

Built on a unified platform and working in concert with revolutionary data integration methodology, IBM Information Server helps organizations derive more value from complex, heterogeneous information spread across their systems and delivers:

- **Productivity:** Dramatically simplifies how organizations deal with heterogeneous information, creating information that is quickly and easily understood, and integrated and delivered to meet any business requirement.
- **Trust:** Increases confidence in information by ensuring consistency and quality in information across the enterprise; facilitates alignment of business and IT goals by maintaining meaning, context and lineage of information.
- **Scalability and performance:** Enables enterprises to deal with the huge and ongoing growth of data volume, providing a complete view of information in a timely and efficient manner.
- **Value:** Leverages Service Oriented Architecture (SOA) to unlock information from individual application silos, creating more accessible and consistent information throughout the enterprise.

- *Make more efficient and effective business decisions with trustworthy data.*
- *Reduce IT and supply chain costs with a single, accurate view of customers, products and suppliers.*
- *Improve customer service and revenue-generating opportunities.*
- *Assemble the auditable, trusted information needed to comply with regulations like Sarbanes-Oxley and Basel II.*

### Transform your data into information

IBM Information Server can also transform and enrich information for new uses in new contexts. Hundreds of pre-built, metadata-driven transformation functions combine, restructure and aggregate information from its current application-centric form into entirely new contexts, allowing information to be used in new ways to suit new business needs. Using transformation, you can:

- *Remove the complexity of integrating data from heterogeneous data sources.*
- *Derive important and relevant information out of complex, heterogeneous data.*
- *Ensure information is in a form appropriate for its intended use.*
- *Provide an enterprise-wide view of the business at any time, to anyone.*

### Deliver your information

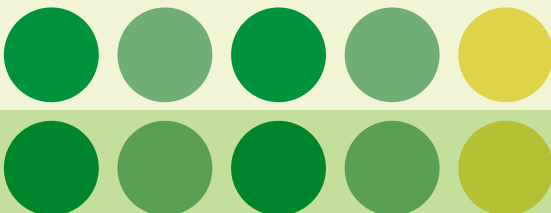
With the ability to virtualize, synchronize or move information to deliver it in-line to the people, processes or applications that need it, IBM Information Server provides

information when you need it, how you need it. Whether the information is delivered on demand, through federation, or on a timed or event-driven basis, it can be moved in bulk from location to location or accessed in place reusing the same core logic. Information delivery enables you to:

- *Ensure information is always available, when and where it's needed.*
- *Improve data accessibility and consistency for improved self-service operations for customers.*
- *Reduce latency for real-time visibility into operational information.*

With storage requirements increasing at a compound rate of 37 percent between 1996 and today, increasing volumes of data are getting in the way of operational efficiencies. Add to that acceleration in data processing with less time to process more data, and you can have potential performance issues.

IBM Information Server overcomes these challenges by leveraging powerful parallel processing technology to ensure that enormous volumes of information can be processed quickly. The technology ensures that processing capacity is never an inhibitor to achieving project results, allowing solutions to easily expand to new hardware and to fully leverage the processing power of all available hardware.



# Information Management Solutions

## Unified metadata

IBM Information Server leverages a unified metadata infrastructure to facilitate a shared understanding across business and technical domains. This metadata foundation not only reduces the time between specification and build, but additionally provides a persistent record of understanding that can drastically reduce downstream project delivery times, and improve overall insight and confidence in information. All functions of IBM Information Server share the same meta model, spanning design and

operational metadata, making it easier for different roles and functions to collaborate seamlessly to complete project tasks.

## Common connectivity

For information across diverse sources, including structured, unstructured, mainframe and application data sources, IBM Information Server provides the broadest and deepest connectivity available. Metadata-driven connectivity is shared across the platform and connection objects are reusable across functions, making it easier than ever to get to any

type of information across the enterprise and deliver it on demand.

## Common services

Built entirely on a set of shared services that centralize core tasks across the platform, IBM Information Server manages administrative tasks like security, user administration, logging and reporting. Regardless which product function is in use, IBM Information Server manages and controls them all in one location.

Common services also include metadata services for access and analysis of metadata across the platform. In addition, the common services layer manages how services are deployed from any of the product functions, enabling cleansing and transformation rules or federated queries to be published as shared services within a SOA, using a consistent and easy-to-use GUI.

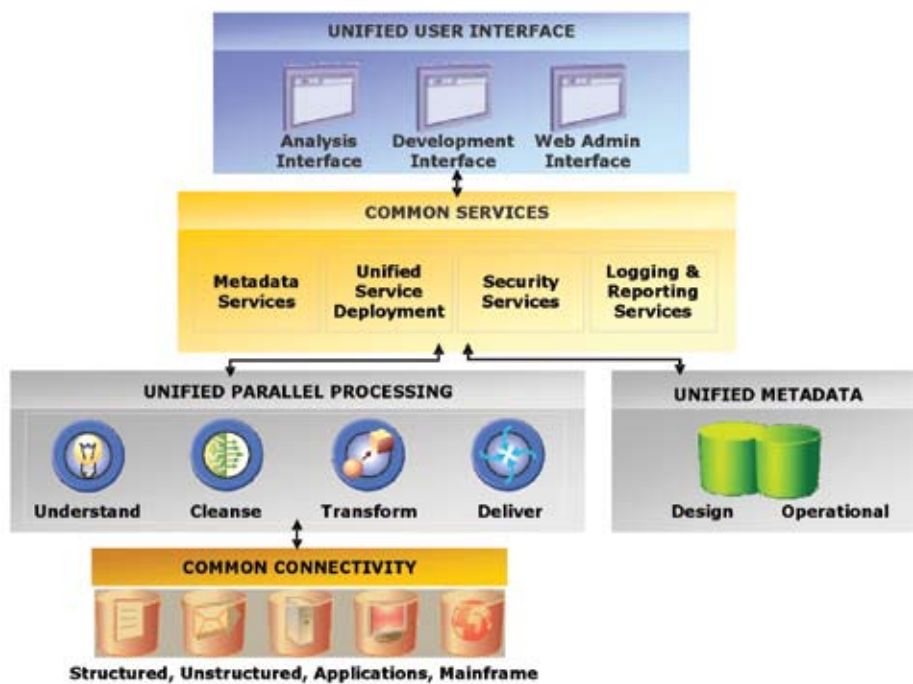


Figure 2: IBM Information Server high-level architecture, Architectural Elements, Unified Parallel Processing Engine.

## Unified user interface

Development teams will appreciate the unified, role-centric visual user interfaces of IBM Information Server as they design information integration logic across functions. Segmented across three activity types—analysis, development and administration—the unified user interface focuses on role-centric productivity and cross-role collaboration, dramatically improving project development time.



## Information Management Solutions

### Delivering business results with integrated information based on innovative technology

#### Value-added services

Most key business initiatives cannot succeed without effective information integration. That's why information integration solutions from IBM go beyond software to provide the services and industry-aligned expertise you need to meet your own unique business goals. With professional services and support, your enterprise can rely on customized implementations to meet specific objectives — and leverage proven industry data, process and integration models to speed the time to value for critical business initiatives. The complete solution includes:

- *Assistance with the application of proven data integration methodology, so you won't miss critical steps early in the process that later require recovery, costing you not only additional time but money and cost.*
- *Training, best practices and mentoring that gets your team up to speed quickly while they gain experience that is critical to long-term system maintenance.*
- *Utilization of some of the broadest and most comprehensive data, process and integration models for banking, insurance, telecommunications and retail.*

#### Global Technology Services to ease implementation

IBM brings years of experience to data system design and validating client's information management architecture to map a solution to client-specific business requirements. Each client's solution is customized to its unique needs, and optimizes its existing IT assets. IBM Information Management Services helps clients configure an integrated IT architecture that incorporates leading technologies and maximizes both current and subsequent investments in information management by integrating data to support business initiatives, improve the productivity of employees, customers and partners, as well as raise confidence levels in data validity and integrity.

#### Technology for innovation

Working hand-in-hand with the patented IBM Iterations® data integration methodology, IBM Information Server helps you integrate information and deliver fast, high-quality results for key business initiatives.

IBM Information Server achieves new levels of information integration, speed and flexibility by providing:

- ***Productivity** – Combined data quality and transformation functions minimize the complexity of common tasks. Compared*

*to development using discrete tools and engines, IBM Information Server reduces development time and the number of development stages required by up to 40 percent.*

- ***Trust** – Native data profiling and analysis provide a complete understanding of physical structure, usage and quality of source systems across the enterprise.*
- ***Scalability and performance** – True parallelism through automated partitioning and process pipelining lets you scale across available hardware, without requiring job design modifications as hardware configuration changes.*
- ***Value** – Rapid service that deploys in minutes through a single administrative interface won't require that your IT staff learn special programming skills. Conversely, the people who best understand the information can publish and maintain the information services.*

#### Benefits for your business

For a strategic deployment across the enterprise or a tactical implementation for a specific project, by basing your information integration architecture on IBM Information Server, you can lay the groundwork for long-term benefits. Designed for reuse, extensibility across the enterprise and adaptability to evolving integration requirements, IBM Information Server helps you achieve important business objectives and benefits, including:



## Information Management Solutions

- *Accelerated time to value for strategic business initiatives through shared services and integrated metadata with breakthrough productivity and flexibility for integrating and enriching information.*
- *Risk reduction as the quality of auditable business data improves with a foundation for trusted information across the enterprise.*
- *Decreased costs as data redundancy is reduced and systems are streamlined with consistent, reusable information services.*
- *Rapid response to regulatory compliance measures imposed by an industry or government.*

### Optimized for your success — and system requirements

When you're tasked with doing more for the business with less staff and smaller budgets, it's critical to leverage the systems and applications you already have in place. IBM Information Server is the one solution, from a single vendor, that supports integration of all data types and multiple architectures, providing your organization with a solid basis for expediting transactions, streamlining operations, supporting customers and making sound decisions. With IBM Information Server, you can support multiple operating systems, including the widest available range of hardware and operating system environments, including Microsoft® Windows®, HP-UX (PA-RISC and Itanium), Linux®, Solaris and IBM z/OS® for mainframes.

Connectors bring all your information together and feature the following:

- **Structured** – High-speed, bulk and event-driven native connectors for all types of databases, including relational, non-relational and XML, as well as other file systems and hierarchical data sources
- **Unstructured** – Content-optimized connectors for unstructured data sources, including content repositories, file systems, e-mail systems and workflow engines
- **Application** – High-speed and bulk metadata-driven connectors for packaged applications, including SAP, PeopleSoft, Siebel, JDA and others
- **Mainframe** – Native high-speed, bulk, and event-driven connectivity for all mainframe data sources

### For more information

To learn more about IBM Information Server and how it can help your organization derive more value from the complex, heterogeneous information spread across your systems, contact your IBM marketing representative or IBM Business Partner, or visit: [ibm.com/software/data/integration](http://ibm.com/software/data/integration).

To find additional literature about Information Integration technologies, visit: [ibm.com/software/data/integration/library.html](http://ibm.com/software/data/integration/library.html).

## IBM Information Server product modules and companion products

Additional IBM Information Server solution options include the following proven technologies:

- **WebSphere Information Analyzer** profiles and establishes an understanding of source systems, and monitors data rules on an ongoing basis to eliminate the risk of proliferating incorrect and inaccurate data.
- **WebSphere QualityStage** standardizes and matches information across heterogeneous sources.
- **WebSphere DataStage®** extracts, transforms and loads data between multiple sources and targets.
- **WebSphere Federation Server** defines integrated views across diverse and distributed information sources, including cost-based query optimization and integrated caching.
- **WebSphere Information Services Director** enables information access and integration processes for publishing as reusable services in a SOA.
- **WebSphere Metadata Server** provides unified management, analysis and interchange of metadata through a shared repository and services infrastructure.
- **WebSphere Business Glossary** defines data stewards and creates and manages business terms, definitions and relates these to physical data assets.
- **IBM Rational® Data Architect** provides enterprise data modeling and information integration design capabilities.
- **WebSphere Replication Server** provides high-speed, event-based replication between databases for high availability, disaster recovery, data synchronization and data distribution.
- **WebSphere Data Event Publisher** detects and responds to data changes in source systems, publishing changes to subscribed systems, or feeding changed data into other modules for event-based processing.



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IBM Software Group  
Route 100  
Somers, NY 10589  
U.S.A

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