

Accelerating an information-led transformation with IBM System z

IBM solutions for a Smarter Planet



As the world becomes increasingly instrumented, interconnected and intelligent, organizations have more opportunities to make faster, better-informed decisions that drive smarter business outcomes. IBM's Smarter Planet™ initiative focuses on helping organizations seize these opportunities across four key areas:

- **Dynamic Infrastructure:** Building a secure, dynamic infrastructure that keeps down costs
- **New Intelligence:** Driving business optimization through an information-led transformation
- **Smart Work:** Redefining the way people work to optimize business performance
- **Green and Beyond:** Deriving the benefits of green across the value chain from the computer room to the boardroom while satisfying all stakeholder requirements

This brochure focuses on New Intelligence, and how IBM System z® can provide a flexible platform for an information-led transformation that helps deliver the capabilities and analytics that are essential in taking full advantage of the unprecedented amount of information that is available today.

The challenge: Finding ways to use more information more effectively

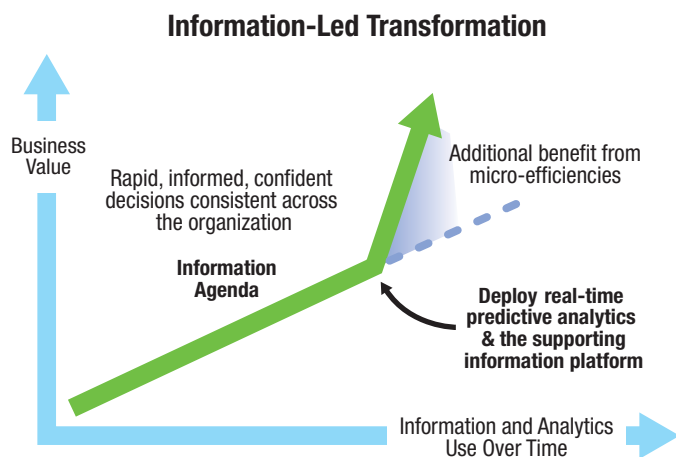
As the planet becomes smarter, the volume of information is exploding. Digital data is being generated in unprecedented amounts—15 petabytes daily, or more than eight times the information contained in all U.S. libraries.¹ But the volume of

data is only part of the picture; the expansion of information today is also characterized by tremendous variety. There is not just more data; there are more *kinds* of data. There is structured data that is stored in fields in databases, and unstructured data that comes from e-mails, documents, spreadsheets, blogs and Web pages. There is machine-generated data gathered from sensors, meters and other sources. There is accurate data, and data that is filled with errors. With so much information of such varying quality available, it can be extremely challenging for people to obtain the right information to use in their daily decision making. In fact, 42 percent of people report they are forced to make decisions with the wrong information at least once a week, which can lead to business risk and exposure.²

Yet the proliferation of information still has the potential to provide a powerful tool for decision making—if the information can be effectively captured, managed, analyzed and made available to people who need it in the context of the role they play in the decision-making process. This requires a new emphasis on using business intelligence (BI) and analytics to enable informed, real-time decisions at the point of greatest impact. Many high-level decision makers are already seeing the urgency of such a shift. The results of IBM's Global CIO Study 2009 indicate that leveraging analytics is now a high priority for CIOs. Eighty-three percent of those surveyed identified BI and analytics as the top focus area to increase enterprise competitiveness.³

The response: Moving along an information-led transformation journey

Forward-thinking organizations are starting to set themselves apart from their peers by using this wealth of information and analytics for better, faster decisions, optimized processes, and more predictable outcomes. They are achieving breakaway competitive advantage through an information-led transformation. The outcomes of an information-led transformation are pervasive intelligence and predictive, real-time analytics that foster continuous optimization throughout a business. Organizations will be able to optimize every transaction, process and decision—ranging from a senior leader’s strategic decisions to the actions of individual employees throughout the organization—in real time, at the point of impact.



Organizations will reach a tipping point when they apply real-time analytics at the point of greatest impact.

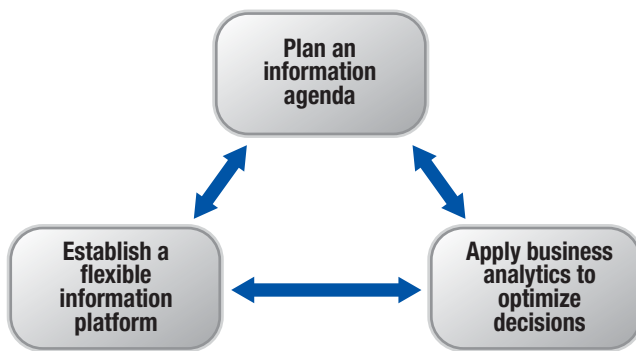
The three components of an information-led transformation

To realize the benefits of an information-led transformation, organizations must do three things: methodically plan an information agenda, establish a flexible information platform, and apply business analytics to optimize decisions. IBM System z offerings include solutions with the necessary capabilities in each of these areas to carry out activities that will enable an information-led transformation.

Plan an information agenda

An information agenda is a strategic plan for using information to fulfill organizational objectives. It involves creating a roadmap and taking advantage of industry-specific frameworks and accelerators to ensure that the information being gathered, analyzed and shared is aligned with the organization’s business strategy. The process of planning an information agenda starts with defining the information projects that align with the business goals, along with the data sources and other components of an organization’s information environment. IBM InfoSphere™ Foundation Tools for System z can help define the environment in terms of these components. Then organizations can begin to discover, understand and analyze the data they have and the data they need, so that information can become a trusted strategic asset. Other IBM resources for planning an information agenda include workshops and industry guides to help with identifying business priority-based information projects. A set of industry-specific information accelerators provides assets to establish the roadmaps and infrastructure to support project deployments. Finally, IBM offers services to support the institution of ongoing policies and best practices to help continually improve on the information agenda and monitor progress against it over time.

Three Elements of an Information-Led Transformation



System z is an ideal hardware foundation for the three elements that are required to effect an information-led transformation.

Establish a flexible information platform

A solution is only as strong as its weakest component. System z's data serving strengths provide the perfect foundation on which to build data warehousing, enterprise content management (ECM), integrated BI, master data management (MDM) and other solutions. These strengths include the ability to provide a common view of data no matter where or how it is accessed; significant platform scalability to handle extremely large databases; and unmatched security and availability. 95 percent of Fortune 1000 companies store their business data on System z.⁴

z/OS® integrity is designed to help protect your system, data, transactions and applications from accidental or malicious breaches. This is one of the many reasons why IBM System z remains the industry's premier data server for mission-critical workloads.

As the basis for a flexible information platform, System z provides:

- Data management capabilities to manage data over its complete life cycle.
- ECM to manage unstructured data.
- The information infrastructure to securely manage information and mitigate business risk.

For data management, DB2® for z/OS and IMS™ bring IBM's leading relational and hierarchical database technology to System z. DB2 addresses the challenge of managing more data while still controlling data management costs, by providing deep compression capabilities that dramatically reduce storage requirements. DB2 also helps improve the performance of mission critical ERP and CRM applications by providing high levels of scalability and availability. IMS enables reuse of existing and new IT investments for increased business flexibility, while easing new application development at the lowest overall operating cost.

In addition to the database technology, IBM provides a variety of other data tools for use on System z including application management, backup and recovery, audit, encryption, and performance management and optimization tools. In addition,

IBM Optim™ solutions help manage data growth and data privacy, and IBM Data Studio products provide for database development and administration.

InfoSphere software for System z includes comprehensive tools to help create, manage, govern and deliver trusted information on System z. These include InfoSphere Foundation Tools to understand the structure, content and quality of available information; InfoSphere Information Server technology to cleanse and integrate information from sources such as enterprise resource planning (ERP) and customer relationship management (CRM) systems; and InfoSphere Master Data Management Server capabilities to provide a consistent, consolidated view of information from throughout the organization. InfoSphere also provides unified, powerful data warehousing for real-time access to information and data.

IBM ECM solutions on System z optimize content, process and compliance management on System z. Organizations can capture, manage and leverage enterprise content on System z using IBM FileNet® Content Manager and IBM Content Manager, and create insights from unstructured information using IBM Content Integrator for z/OS. The entire ECM portfolio is underpinned by the security and resilience of the System z platform to help manage regulatory compliance.

The information infrastructure component of a System z-based information platform enables organizations to securely manage information and mitigate business risks as part of their information governance requirements. The information infrastructure addresses four key areas:

- Availability – keeping information accessible
- Security – keeping information protected

- Retention – keeping information for internal or regulatory needs
- Compliance – keeping the organization protected from legal and regulatory exposure

IBM provides hardware, software and services to store and manage information to address all of these areas, including IBM System Storage™ solutions and IBM Tivoli® software solutions.

The Carolina Data Warehouse for Health at the University of North Carolina runs on System z hardware. It is part of a new health analytics environment that was designed to generate timely, quality information for researchers to use in developing new treatments for major diseases. The data warehouse takes advantage of IBM WebSphere® and InfoSphere software running on System z and IBM Power® servers. The real-time access that the database provides has enabled the university to increase the timeliness of information available to researchers, staff and physicians, ultimately hastening the development of treatments for diseases such as diabetes, cystic fibrosis and cancer. Clinical queries that once took weeks now take just seconds, and researchers can analyze vast amounts of patient data and uncover trends in a fraction of the time that was once required. In addition, the Diabetes and Patient Care data marts that are part of the implementation support general queries related to treatment and measurement of outcomes, leading to improved patient care.

In another example, a large bank in Europe created an information platform based on System z to address client management issues stemming from having data spread across multiple disparate systems. The bank deployed a third-party CRM solution on IBM System z10™ Enterprise Class servers, which provides a single, comprehensive view of clients and enables the bank to respond to them faster and in a more personal manner. Information generated from clients across multiple channels is integrated, and customer profiles and sales pipelines are seamlessly tracked. The new system helps the bank successfully manage a growing number of clients by providing complete opportunity management, automatic history tracking, data sharing from enhanced team selling, and management of appointments and contracts.

Apply business analytics to optimize decisions

By applying real-time business analytics to information, organizations can institute the monitoring, reporting and predictive analysis that are all vital to optimized decision making at all levels of an organization. As a platform for data warehousing and BI, System z brings together:

- Enterprise data warehouse capabilities that are based on IBM DB2 for z/OS.
- A complete extract, transform, load (ETL) solution enabled by InfoSphere Warehouse and InfoSphere Information Server for System z.
- Consolidated enterprise BI that leverages IBM Cognos® 8 Business Intelligence for System z.

There are several compelling reasons to rely on System z for business analytics. Many System z customers already use DB2 for z/OS as a data warehouse and BI platform, and IBM is responding to them with new DB2 features, new software

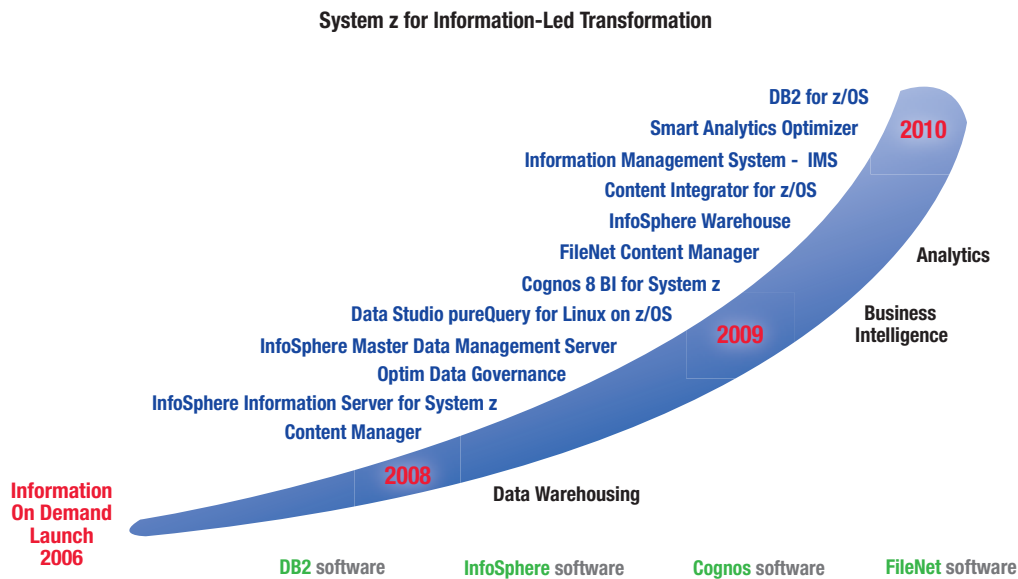
offerings and improved hardware performance. Customers also want to leverage their existing System z infrastructures to help reduce their total cost of ownership for business analytics. In addition, BI trends such as dynamic warehousing and operational BI map well to the strengths of System z and DB2 for z/OS.

The IBM Smart Analytics Cloud is an IBM solution that brings together IBM hardware, Cognos 8 BI software and IBM services to deliver BI and analytics services across an entire organization in a private cloud deployment. The Smart Analytics Cloud is based on a System z foundation because customers benefit from the massive scale, virtualization leadership and reliability, availability and security that System z is uniquely qualified to deliver.

IBM was the first company to use the Smart Analytics Cloud for System z, resulting in more than US\$20 million savings over five years, representing more than 75 percent savings of BI costs. These results stemmed from consolidating more than 20 multiproduct, departmental BI deployments to Cognos 8 BI for System z, in a private cloud deployment supporting more than 200,000 named users across IBM's global workforce

Smart Analytics Cloud for System z:

- Establishes a corporate strategy for service delivery of BI.
- Reduces the time and cost to deliver BI to new divisions and departments.
- Maintains existing departmental business processes, corporate security and compliance.
- Maximizes departmental budgets by subscribing to standard services.
- Offers economies of scale and flexibility through the use of a private cloud solution.



More new capabilities for System z have been delivered to support an information-led transformation in the past three years than at any other point in the mainframe's history.

A wealth of capabilities for the information-led transformation

IBM customers have delivered a clear message that information is central to transforming their business, and that System z is viewed as an integral part of their strategy. IBM has responded by delivering a significant number of products and capabilities to support these initiatives. In fact, as the accompanying graphic illustrates, IBM has delivered more

new capabilities for System z in these areas between 2008 and 2010 than at any other time in the history of System z. Of course, not every organization needs every product and solution in their efforts to better leverage the business value of information. But the vast capabilities represented by the portfolio of products available for System z ensure that IBM can deliver whatever an organization requires to meet their information-driven challenges.

For more information

To learn more about how System z can help deliver an information-led transformation, contact your IBM sales representative or IBM Business Partner, or visit and ibm.com/systems/z and ibm.com/systems/z/software



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- ¹ “2008 Annual Review: Intelligent Information,” Thomson Reuters. <http://ar.thomsonreuters.com>
- ² “Managers Say the Majority of Information Obtained for Their Work is Useless, Accenture Survey Finds,” Accenture, January 04, 2007. http://newsroom.accenture.com/article_display.cfm?article_id=4484
- ³ “The New Voice of the CIO,” IBM Global CIO Study, 2009. ibm.com/voiceofthecio
- ⁴ “IMS at 40 – Stronger than ever,” IBM Database Magazine, November 2008. ibm.com/developerworks/data/library/dmmag/DBMag_Issue40_IMSat40/index.html



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