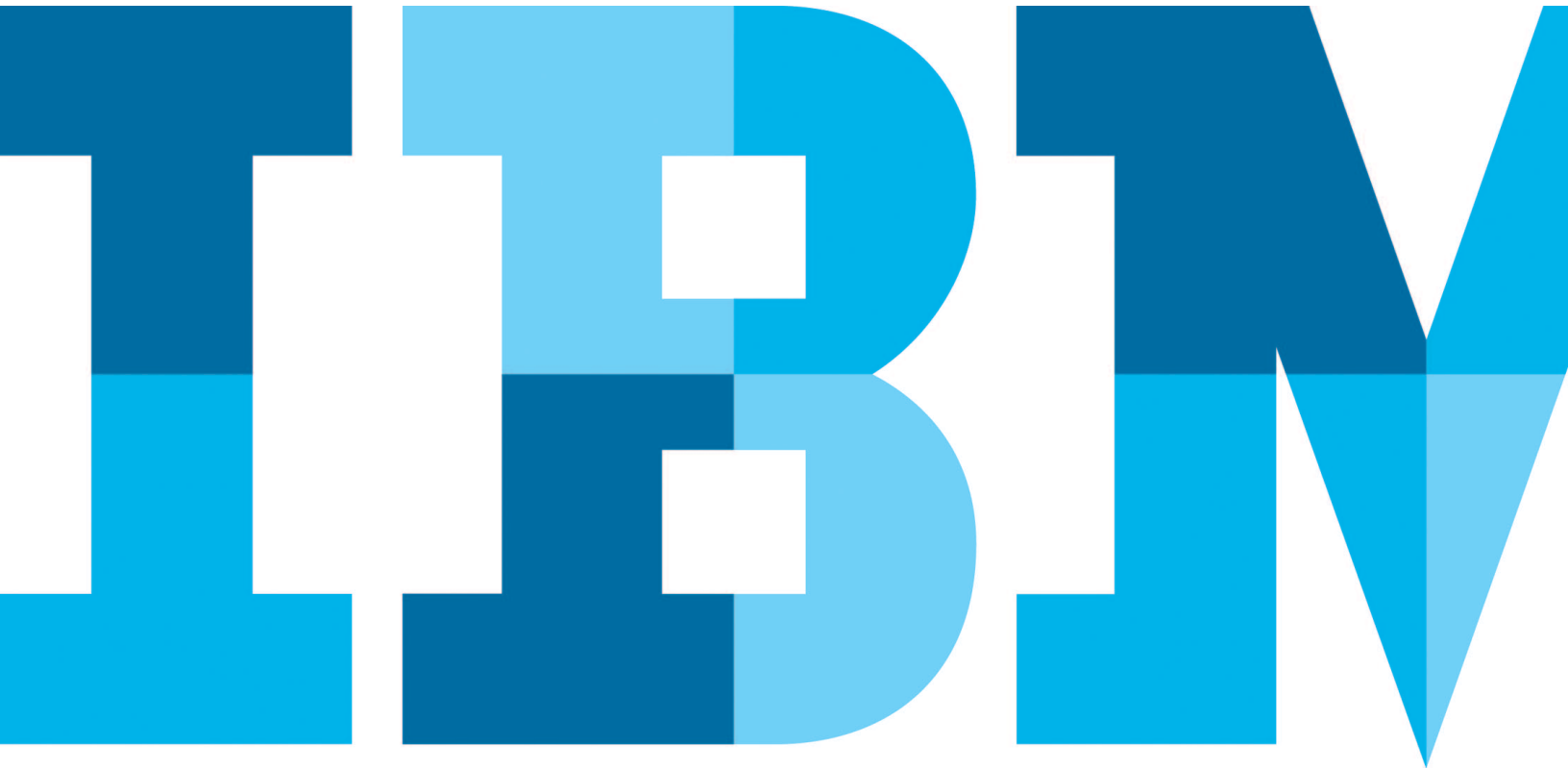# IBM zEnterprise Analytics System 9700 and 9710

Deliver vital business insights fast and cost-effectively

IBM

Across a wide range of industries, organizations recognize that analytics deliver the new competitive edge. Analytics is the key to opening the doors to valuable insights that can be used to maximize business performance.

Many analytics applications are now considered business-critical. Users expect more from those applications—and expect that the information they receive is timely, accurate and compliant. If these business-critical analytics applications fail at any level, for any length of time, vital business consequences such as loss of revenue, increased costs due to fraud, or loss of business may occur. Strategic and IT teams must ensure the highest levels of performance, availability and scalability of their analytics tools and be confident that the data used for analytics is delivered efficiently across the organization, is of high quality and is properly governed. The inability to address these requirements can negate any competitive advantage initially gained through analytics advancements.

When evaluating different approaches to analytics, the teams responsible for defining analytics strategies and directions must assess not only business intelligence (BI) and predictive analytics tool capabilities but also the information management foundation that these tools depend on. They must consider where information enters the business through transactional systems; how that data is moved, cleansed and managed; and which data warehousing solution best fits their needs. They must carefully evaluate not only individual product solutions but also the platform alternatives that will allow them to most efficiently access data at its source, minimize back-end complexity and reduce expenses without compromising performance and end-user satisfaction.

A successful analytics strategy requires a portfolio of business and technology solutions that help everyone gain insight—from executives and data analysts to employees on the front line. These solutions must provide real-time monitoring, reporting, analysis and dashboards, and a robust set of predictive analytics that can support smart, proactive business decisions. They must incorporate a flexible data warehousing infrastructure as the foundation for the organization's business analytics investment, so that users can access the information they need when they need it without worrying about delays, rigid infrastructure or system disruption during an upgrade, improvement or disaster.

To meet these requirements, many organizations are leveraging their existing IBM® zEnterprise® infrastructure, people and processes to support expanding analytics needs. Business-critical analytics applications are complex and involve a broad mix of high-speed transactions and complex queries that must be processed simultaneously with very low latency. Organizations with zEnterprise have the distinct advantage of a hybrid solution that brings together high-volume business transactions, batch reporting and complex analytics queries running concurrently in a mixed-workload environment.

IBM zEnterprise Analytics Systems enable you to quickly and cost-effectively leverage a hybrid environment that integrates analytics and BI capabilities with the powerful zEnterprise system you already have in place. The IBM DB2® Analytics Accelerator, a component of the zEnterprise Analytics Systems,

delivers outstanding mixed-workload performance for complex analytics needs, offering near-real-time reporting with minimal data latency and superior quality of service. With the zEnterprise Analytics Systems, you can capitalize on the tremendous potential for analytics to generate new insights, improve decision making and enhance your competitive advantage while controlling costs and complexity.

The zEnterprise Analytics System 9700: A foundation for business-critical analytics

The IBM zEnterprise Analytics System 9700 provides customers with a cost-effective foundation to deliver business-critical analytics. This fully integrated data warehouse and analytics solution is designed to give your organization the insights it needs to work smarter. The zEnterprise Analytics System combines software, hardware and services optimized to deliver mission-critical analytics across your organization. All components have been preselected, pretested and solution-priced. The zEnterprise Analytics System is presized for a wide variety of configurations, ranging from modest database sizes and user populations to petabyte systems with hundreds to thousands of users. Deeply optimized and ready to use, the zEnterprise Analytics System 9700 can help you quickly deliver vital business insight to users across your enterprise when and where they need it. As a result, your organization can anticipate and respond to ever-changing business conditions and uncover and capture new revenue opportunities.

zEnterprise EC12: Available as a new system or as an additional logical partition (LPAR) on an existing system

Figure 1. IBM zEnterprise Analytics System 9700 is an integrated, optimized, cost-effective solution organized for simplicity and functionality.

The zEnterprise Analytics System 9700 offers:

- The extension of the operational environment to analytic processing without affecting transactional systems
- An integrated hybrid technology environment optimized for both high-performance analytics and online transaction processing (OLTP)
- A single database image to self-manage the diverse range of queries that every business needs to answer

- An analytics platform that can support deep mining and analytical reporting with minimal data movement
- The ability to perform operational analytics with the same quality of service as your OLTP environment on zEnterprise
- A platform of unequaled security (EAL5+) with extreme availability and recoverability

Maximizing the business value of your data starts with a robust centralized environment that enables you to deliver business information across your enterprise. The zEnterprise Analytics System 9700 is built on the world-class IBM DB2 for z/OS® database and the zEnterprise hardware platform. It leverages the IBM zEnterprise (zEC12) and z196 servers. The zEC12 has a total system capacity performance improvement of 50 percent over z196 80-way and a 25 percent performance improvement over a z196 uniprocessor.[1] The zEC12 delivers that performance while helping to minimize floor space and energy requirements.

The zEnterprise Analytics System 9700 also uses the IBM System Storage® DS8870, the most advanced model in the IBM high-end disk portfolio. Together, zEnterprise servers and storage offer a flexible, scalable and highly available environment able to support 24x7 operations.

IBM DB2 Analytics Accelerator: Helping to change the way you do business

How do you combine the mixed workload capabilities of an operational environment with the special purpose needs of complex analytics? You combine a fit-for-purpose, high-performance analytics accelerator with the unmatched mixed workload capabilities of zEnterprise.

The DB2 Analytics Accelerator (Accelerator) is an essential component of the zEnterprise Analytics System 9700. A high-performance appliance, the Accelerator blends the best attributes of symmetric multiprocessing (SMP) using DB2 for z/OS with the best of massively parallel processing (MPP) using IBM Netezza® technology to accelerate relevant data-intensive and complex queries. As a result, you can run analytic queries and generate insights rapidly, opening up unprecedented opportunities to capitalize on the data you already have on the zEnterprise platform.

The Accelerator allows you to bring analytics closer to transactional data sources, taking advantage of a hybrid, mixed-workload environment that runs high-volume OLTP, online transactional analytics processing (OLTAP) and BI/online analytics processing (OLAP) workloads concurrently, to achieve extraordinary performance at a reasonable cost. It capitalizes on Netezza technologies to extend DB2, enables deeply embedded capabilities behind the application layer, and provides full transparency to applications and end users that submit queries to DB2 for z/OS. The Accelerator can speed up a substantial percentage of queries and deliver dramatic improvements in cost and performance.

You can realize immediate value from this easy-to-deploy solution. Whether you're running operational reporting or business-critical analytics, you are no longer constrained by the speed of your system. The optimized combination transparently routes workloads to their most appropriate resource. From complex analyses driven by a wide variety of applications and tools such

as IBM Cognos® 10 or IBM DB2 Query Management Facility™ (QMF™) to existing applications, the Accelerator opens opportunities and new approaches for organizations to become information-led.

The 9710: Enterprise performance at an entry-level price

For customers looking for a more modest solution than the zEnterprise Analytics System 9700, yet one with the availability, security and virtualization that system offers, there is a smaller footprint solution called the IBM zEnterprise Analytics System 9710. It is based upon the IBM zEnterprise BC12 or z114 servers, delivering the quality of service of zEnterprise at an entry-level cost. It also offers the DB2 Analytics Accelerator and three add-on packs as options.

The IBM zEnterprise Analytics System 9710 offers an integrated, cost-competitive business reporting and analytics solution to quickly and securely deliver vital business insight to users across the enterprise. It can support operational analytics, deep mining and analytical reporting with minimal data movement, performing operational analytics with the quality of service organizations expect from zEnterprise.

zEnterprise BC12: Available as a new system or as an additional logical partition (LPAR) on an existing system

Figure 2. The zEnterprise Analytics System 9710 delivers the quality of service of zEnterprise at an entry-level cost.

Add-on packs to meet your specific requirements

The zEnterprise Analytics Systems also offer a complete set of add-on packs to provide a solution that is comprehensive, yet flexible enough to meet your specific needs. The following sections highlight the benefits of these packs.

The Data Analytics Pack: Broad analytics with predictive capabilities

The Data Analytics Pack delivers a full range of business intelligence, predictive analytics and performance management capabilities to support transactional, operational and strategic business decisions. This pack contains the following solutions:

- Cognos Business Intelligence offers a full range of BI capabilities from reporting, analysis and dashboards to real-time monitoring, so all users have the information they need to make smarter business decisions.
- IBM SPSS® Modeler Gold, a data mining workbench, helps you build predictive models quickly and intuitively, without programming, and its real-time Scoring Adapter integrates your transactional applications running on IBM DB2 for z/OS to improve the accuracy, speed and performance of real-time scoring while reducing cost and complexity.

- Cognos TM1 provides "what-if" planning and budgeting tools along with performance management including metrics management and scorecarding for personal, departmental and enterprise-wide analysis.
- DB2 QMF addresses customers' analytics needs and leverages their current DB2 on z/OS investments.

The Data Integration Pack: Designed for today's complex environments

The Data Integration Pack provides data discovery, data transformation and movement, and real-time delivery capabilities. This comprehensive package integrates and transforms data and content to provide accurate, consistent, timely and complete information. The addition of IBM InfoSphere® Data Replication for DB2 for z/OS and Linux on zEnterprise to this pack enables near-real-time data replication from supported source databases to DB2 for z/OS or IBM InfoSphere Information Server. Data Replication captures changes in the database as they occur and sends these changes to a target extract, transform and load (ETL) job or DB2 for z/OS environment. Replicating data into analytics environments can result in more timely data delivery, better reporting and better decision making.

Fast Start Services Pack: Speeding time-to-value

Fast Start provides predefined services that can be tailored to meet the unique needs of your environment, which helps you ensure that your solution is up and running quickly and remains as relevant and powerful into the future as it is today. These services provide the quickest time-to-value with the least amount of staff impact. They can be used to augment skills, perform skill transfers or optimize the system for your unique workloads.

Address modern requirements for business-critical analytics

The zEnterprise platform is well matched to today's requirements for business-critical analytics. As companies hosting source data on it already recognize, zEnterprise is one of the most secure, highly available and reliable platforms on the market. It can scale to accommodate increasing volumes of data and a growing number of users. The zEnterprise Analytics System deployment model allows you to quickly acquire and implement a cost-competitive analytics solution comprised of fully integrated hardware, software and services.

Achieve fast time-to-value and scalability

A zEnterprise Analytics System delivers a cost-competitive foundation that can be deployed quickly and is adaptable to easily expand with your evolving requirements without the need to change your existing environment. Start by addressing your most pressing analytics issues for fast business value, and then position your analytics strategy to grow with your business and market demands. This approach allows you to cost-effectively leverage your existing zEnterprise infrastructure, people and processes to help reduce your total cost of ownership.

Support transaction and business actions on a single platform

zEnterprise Analytics Systems are able to support your critical, demanding business analytics workloads while providing industry-leading quality of service and proven performance. It allows you to bring your analytics processes to where the data originates, minimizing data latency and lowering cost and complexity. The solution helps you to meet your SLAs, and it allows you to expand the access of your operational data to more users—without impacting your transactional systems.

Why choose the zEnterprise Analytics System?

A zEnterprise Analytics System offers significant value for all organizations and users that need to drive smarter business outcomes faster—providing the information they need, where and when they need it.

IBM has assembled one of the most comprehensive portfolios of information management hardware, software and services capabilities on the market today. The zEnterprise Analytics System provides a truly modern, cost-competitive analytics infrastructure. With this solution you can confidently deliver business-critical analytics with the proven quality of service you rely on for your transactional systems.

For more information

To learn more about the IBM zEnterprise Analytics System, please contact your IBM representative or IBM Business Partner, or visit the following websites:

- **ibm.com**/software/data/infosphere/
zenterprise-analytics-system/9700
- **ibm.com**/software/data/infosphere/
zenterprise-analytics-system/9710

Additionally, IBM Global Financing can help you acquire the IT solutions that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize an IT financing solution to suit your business goals, enable effective cash management, and improve your total cost of ownership. IBM Global Financing is your smartest choice to fund critical IT investments and propel your business forward. For more information, visit: **ibm.com**/financing

[1] "The IBM zEnterprise EC12 - proven hybrid computing designed to manage multiple workloads, with the simplicity of a single system." IBM United States Hardware Announcement 112-155. August 28, 2012. **ibm.com**/common/ssi/cgi-bin/ssialias?infotype=AN&subtype=CA&htmlfid=897/ENUS112-155#h2-abstrx

Please Recycle

ZSB03058-USEN-01