Research shows that companies with sophisticated analytics in place are 260 percent more likely to be top performers. Additionally, eighty-four percent of top performers are more likely to have business analytics integrated into their core business strategy and day-to-day operations. However, today in many cases, business leaders are demanding insights from their data faster than IT can deliver them. IBM Research reports that less than 10 percent of companies state that their IT infrastructure is fully prepared to address big data and analytics demands. Organizations must analyze both structured and unstructured data to derive knowledge and maintain their competitive advantage and the resulting business-critical analytics must be broadly available for better-informed decision making throughout the enterprise.

Choosing the right big data and analytics platform is a key decision to “future proof” investments and to drive the right business outcomes to improve competitive advantage.

Business-critical analytics requires lightning fast performance, security, flexibility, business resiliency, and disaster recovery. The LinuxONE platform satisfies these requirements with high performing business analytics and database solutions that reduce cost and complexity. LinuxONE offers one portfolio of hardware, software, and services solutions for business-critical Linux applications.
High Performing Business Intelligence and Reporting
Delivering the right information at the right time in the right format can help organizations make better business decisions, whether strategic, tactical, or operational for improved business performance. Companies are looking for solutions that:

- Arm users with the business intelligence (BI) and performance management capabilities they need to turn insight into action
- Support where users in the organization choose to work with consistent information wherever they go
- Meet the needs of IT with highly scalable, extensible analytics and support for big data
- Provide the performance and availability users expect from an enterprise application

IBM® Cognos® Business Intelligence is an integral part of the IBM Business Analytics and Data Warehousing portfolio. A full range of BI capabilities — reporting, analysis, real-time monitoring, dashboards and mobile BI — are available on a single infrastructure. With Cognos Business Intelligence, everything needed for business insight is on the same platform as the source data, increasing business agility while keeping data safe.

With LinuxONE, organizations have the ability to scale up and out, perform without degradation in application response time, and offer continuous solution availability. The time associated with deploying a new BI application, increasing capacity or both is reduced with the LinuxONE platform for Cognos Business Intelligence deployment.

Big Data Insights and Next Generation Database Technology

Apache Spark

Big data is fueling a new economy—one based on insight. The large volume and variety of data available today offers the possibility of seeing things in new ways. If insight is the basis of a new economy, algorithms are the economic engine that captures deeper insights and fuel business processes, human interactions, and embedded systems.

Building algorithms is not easy. The in-demand data scientists who are tasked with that work need to streamline algorithm development. They require tools that reduce the need for complex coding and deep Apache Hadoop expertise. Apache Spark is an open source engine built specifically for data science. It helps simplify algorithm development and accelerate analytics results. With Spark and LinuxONE, analytics leaders can better extract value from big data, conduct deeper analyses, and deliver results faster, all while leveraging the security and virtualization benefits of a centralized infrastructure.

InfoSphere BigInsights

The interest and uptake of Apache Hadoop in the market has been described as unstoppable by industry analysts. The appeal of no-cost open source software and low-cost commodity hardware favors a “divide and conquer” parallel processing approach to analyzing large semi-structured and non-structured data sets. But what starts as an experiment of low cost, “good enough” hardware and software often falls apart when this situation is applied to mission-critical data. A challenge that clients face in big data initiatives is efficiently extracting, transforming, and loading (ETL) large volumes of data into Hadoop clusters in a timely and cost-efficient manner.

One critical decision clients make is choosing where to analyze the data. IBM InfoSphere® BigInsights® is an industry-standard Hadoop offering that represents lower business risk by reducing the potential of a data breach, lowering costs of managing and moving the data between traditional and Hadoop environments, and providing opportunities for growth by offering deeper analysis and insights of data that is stored or needed by applications on the platform.
“Our continued commitment to empower IBM users to make optimized business decisions, led us to the deployment of a private cloud delivery model that uses IBM Cognos® BI [on LinuxONE]. This strategy is expected to reduce bottom-line IT expenses by greater than $25 million over 5 years. Further, by extending business intelligence capabilities to over 200,000 business users worldwide we will be able to significantly improve business insight and help drive stronger business performance.”

—Peter M. Hayes, Director, IBM Business Analytics Center of Competence

**DB2 with BLU Acceleration**

The DB2® with BLU Acceleration solution offers a huge step forward in analytic workload processing by combining proven in-memory and columnar data store capabilities with advanced compression and hardware exploitation techniques. The result: reliably faster analytic query processing for a variety of online analytical workloads—without the limitations of in-memory-only systems. This results in improved performance, storage savings, and ease of implementation and management for both transactional and analytic data workloads.

**Patterns**

IBM has also delivered patterns specific for the LinuxONE platform including Cognos and DB2. A pattern is a reusable piece of automation in combination with an operating system image that defines either a single product installation or a multiple integrated product installation that deploys a solution. Customers can automatically provision and de-provision software and virtual machines to help reduce complexity, time, and error rates. This approach reduces IT staff workload, allowing the use of the IT staff for other high-priority activities.

**Meet the Availability Expectations of the Business with IT Operations Analytics**

IBM zAware deploys cutting-edge pattern recognition techniques based on machine learning to analyze the health of a system and pinpoint anomalies and deviations from a normal base. IBM zAware identifies problems as they are unfolding so users can intervene early before problems escalate. It analyzes large volumes of data across all LinuxONE servers in an enterprise in real time to facilitate faster problem solving, improved availability, and reduced time to recovery. Anomalies are displayed via heat maps to view the health at a glance.

IBM Operations Analytics enables users to rapidly analyze the vast amounts of structured and unstructured operational data across LinuxONE operating environments:

- Significantly reduce time required for root cause analysis by rapidly searching, filtering, and visualizing results from log, event, and performance data in a single application
- Harness the domain expertise of IBM LinuxONE through domain-specific out-of-the-box insights and Expert Advice
- Tailor the solution to users’ needs through flexible, easy-to-use extension capabilities that leverage the organization’s own expertise
Why IBM?
IBM Analytics solutions for LinuxONE help clients accelerate innovation with business-critical analytics. This provides higher service delivery to business users and more efficient use of resources for improved ROI.

For more information
To learn more about the Analytics Solutions for IBM LinuxONE, please contact your IBM representative or IBM Business Partner, or visit the following website:
ibm.com/linuxone

IBM Systems Lab Services will help connect LinuxONE clients to the appropriate service offerings and associated IBM service teams for their overall LinuxONE services needs. Contact us at stgls@us.ibm.com

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Somers, NY 10589

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