IBM workload optimized systems

Integrating software, hardware and services for better performance at lower cost
To succeed in today’s ever-changing business world, organizations need smarter IT solutions that can efficiently transform rising volumes of data, streaming in from numerous devices, into actionable insights. That transformation can involve multiple tasks, from processing raw data to analyzing information, and each one places different demands on IT systems. Rather than turning to general-purpose systems, which rarely deliver optimal performance for all functions, organizations need workload optimized systems designed to provide the best performance for each specific task and to deliver the greatest return on IT investments.

**Workload optimized systems: Benefits**
The best workload optimized systems bring together the right combination of components, from silicon to software, in a single, integrated solution that is designed to address a particular business need. They are pre-integrated and tested to ensure smooth operation and reliability out of the box, and are supported by a full range of services from a single vendor. These workload optimized systems can help maximize the value an organization receives while minimizing the time and resources needed for setup, training, configuration and maintenance.

In contrast, many “one-size-fits-all” systems fail to meet the increasingly complex demands placed on IT infrastructures. They often include hardware and software components that are unnecessary for target workloads, and they require additional time and money to integrate and test. Even after integration is complete, these systems may fall short of the performance achieved when systems are tailored for specific tasks. For many organizations, the financial and technical risks introduced by one-size-fits-all systems are just too great.

IBM smarter systems for a smarter planet are workload optimized for specific business needs. These systems are not merely bundled collections of components—they are innovative, integrated solutions that capitalize on decades of experience and an extensive product portfolio. They take into account requirements for each workload, and they deliver the levels of reliability, scalability and security required by each organization. By selecting IBM workload

—Joe Clabby, President, Clabby Analytics
optimized solutions, organizations can optimize workload performance, control costs, reduce risk and accelerate the time to value.

**Workload optimized systems: IBM leadership**

IBM is uniquely positioned to provide successful workload optimized systems. For more than 40 years, IBM has developed and delivered workload optimized systems that address specific needs across multiple industries. In designing, deploying and supporting today’s systems, IBM taps into a rich set of best practices drawn from numerous real-world deployments and interactions with a large community of clients, business partners and services professionals.

“IBM is no slouch when it comes to marrying its systems and software...and the company arguably boasts a broader array of components with which to offer a choice of integrated systems.”

— Matt Aslett, Senior Analyst, The 451 Group

IBM workload optimized systems draw upon a vast portfolio of hardware, software and services. From powerful, cost-effective x86 servers to large-scale mainframes, IBM offers a full range of systems that can serve as the foundation for a smarter infrastructure. IBM system offerings include IBM® System x®, IBM Power Systems™ and IBM System z®, plus IBM System Storage®, which help deliver the price/performance, reliability and scalability that organizations need.

IBM software builds on that hardware foundation, helping to solve the most challenging needs of organizations large and small. Workload optimized systems from IBM integrate application servers and databases with analytics, business intelligence and other software to deliver optimized, streamlined software stacks. Plus, IBM continues to make significant investments in the software, hardware and systems integration required to produce workload optimized systems, including developing new software and tailoring systems for specific workloads.

**Smarter systems for a smarter planet**

Smarter systems from IBM are workload optimized and designed to be data-load ready. Applications, middleware, servers and storage are all pre-integrated, tested and configured—primed to deliver value from day one. IBM offers deployment, health-check and premium support services to help ensure that the solutions operate as they should, from the moment they are set up through the solution’s entire lifecycle.
“IBM has announced new pre-integrated and purpose-optimized systems aimed at specific large-scale analytic and transactional data processing workloads. This isn’t new technology; rather, it’s a smarter way of pulling together IBM software, hardware and services.”

— Madan Sheina, Principal Analyst, Ovum

Business intelligence and analytics
IBM Smart Analytics System, which is optimized for analytical workloads, enables you to rapidly deploy comprehensive IBM business analytics. IBM Smart Analytics System is built on a powerful IBM server, storage and data management platform that integrates leading data warehouse, business reporting, and analytics capabilities.

The Smart Analytics System is designed to deliver insights for capturing new opportunities and gaining competitive advantage. For example, retail organizations can create targeted marketing campaigns by analyzing customer data; financial institutions can assess loan risks by evaluating previous outcomes; and medical researchers can identify disease risk factors by synthesizing results from large quantities of imaging data.

As a preconfigured solution, the Smart Analytics System facilitates rapid deployment, enabling organizations to get to work in days, not months. It also can lower costs by reducing the need for extra staff and in-depth expertise for implementation, tuning and maintenance. Working with a single vendor also helps simplify acquisition, implementation and support processes.

Transaction processing and database
Designed for businesses that run online transaction processing (OLTP) applications on distributed systems, IBM pureScale™ Application System integrates powerful IBM hardware with IBM WebSphere® Application Server and IBM DB2 pureScale software to achieve near-limitless database scalability. By spreading the workload across multiple servers in the cluster, pureScale Application System also helps ensure 24x7 continuous availability to keep transactions flowing during planned or unplanned maintenance.

WebSphere Application Server provides an innovative, high-performance foundation that exploits massive parallelism to drive more responsive business applications and processes. DB2 pureScale enables organizations to scale rapidly and
incrementally to accommodate seasonal demand or longer-term growth without requiring massive expenditures or complex application tuning.

**Business process management**

For many organizations, managing a wide array of business processes is costly and time consuming. IBM offers a suite of solutions and services designed to enhance the efficiency of business process management (BPM) and reduce costs by improving visibility into processes, discovering new areas for optimization and automating tasks.

Case management workloads can benefit from these solutions. Organizations in law, financial services, insurance, the public sector and other fields can adopt solutions optimized for processing claims, loans, contracts, audits or benefits. The IBM Advanced Case Management strategy includes business intelligence, analytics and content management software to help improve customer service, capitalize on cross- and up-selling opportunities, automate processes to save time and money and close cases faster.

**Infrastructure applications**

IBM virtualization solutions with IBM Integrated Service Management software facilitate deployment of smarter systems while consolidating hardware and reducing costs. Technologies from IBM and IBM Business Partners help ensure that workloads continue to deliver outstanding performance, availability and security while reducing power, cooling, floor space and administration costs.

Implementing VMware software in IBM System x environments helps optimize the resources for specific workloads while reducing the hardware footprint, decreasing costs and ensuring application security. IBM eX5 systems support significantly larger memory configurations, allowing more virtual machines on each host. With IBM Power Systems environments, organizations can capitalize on IBM PowerVM™ virtualization technology to consolidate hardware while maintaining complete distinct, secure and optimized environments for a range of workloads. IBM Enterprise Linux® Server virtualization software can help virtualize IBM System z environments, maximizing virtual server performance while simplifying management. And IBM WebSphere Virtual Enterprise helps lower operational costs and increase application availability through application infrastructure virtualization anchored in policy-based workload management and proactive application health management.

**A competitive edge for a smarter planet**

Whether an organization needs to uncover hidden insights in tremendous volumes of data, accommodate a rising number of online transactions or manage expanding case loads, it needs systems designed for the unique requirements of their workload. By tailoring systems to specific tasks, IBM workload optimized systems deliver exceptional performance while helping to increase IT efficiency, maximize the value of investments and provide a competitive edge on a smarter planet.