



ACTIVATE BUSINESS WITH THE POWER OF I.T.™



Maximizing DB2 Performance and Availability With BMC

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Introduction

BMC Software DB2 utilities have set the standard for high database availability and performance since 1988. Customers rely on BMC for the most advanced data management solutions and utilities to maximize the availability of mission-critical DB2 applications. Most of the world's data still resides on mainframes, and DB2 databases drive a large part of the global economy.

DB2 high-speed utilities were developed to maintain and manage DB2 databases more efficiently. BMC continues to develop industry-leading data management solutions that keep data-intensive DB2 applications running at peak performance with high availability. Providing continual application availability and meeting customer service level agreements (SLAs) are critical to business success, and BMC DB2 utilities deliver minimal downtime for your DB2 databases. In many cases, no outage is required when running these utilities.

With increasing economic pressures, IT professionals must carefully scrutinize hardware, software, and labor costs. Balancing these costs over time has traditionally been described as managing the total cost of ownership (TCO). To contain IT costs and grow business profits, IT professionals strive to lower TCO. The challenge lies in balancing the cost of technical personnel with the management of increasingly complex hardware and software environments — while maintaining very high levels of service.

“When considering migrating to new versions, support from vendors such as BMC is definitely a factor in our decision-making process,” said Tricia Maupin, DBA manager, Corporate Systems Incorporated. “Corporate Systems provides sophisticated property/casualty risk management information software services and products that help clients improve productivity, increase efficiencies, and provide higher levels of customer service. To ensure this high level of service for our clients, it is critical that regardless of the platform we are working on, we are afforded data management solutions such as BMC’s that ensure our systems remain available at all times.”

IBM DB2 V8 — Breaking Limits

IBM’s DB2 Universal Database for z/OS V8 (DB2 V8) provides more integration and synergy with zSeries hardware, with middleware, and with applications. It also breaks through many previous limitations with scalability and availability. DB2 V8 supports 64-bit virtual storage; the zSeries 64-bit architecture allows DB2 V8 to move many storage areas above the previous 2BG limit. In DB2 V8, the maximum number of partitions in a partitioned table space increased from 254 to 4096 partitions. Applications with large volumes and to those that require high availability must be able to add partitions and to make schema changes online.

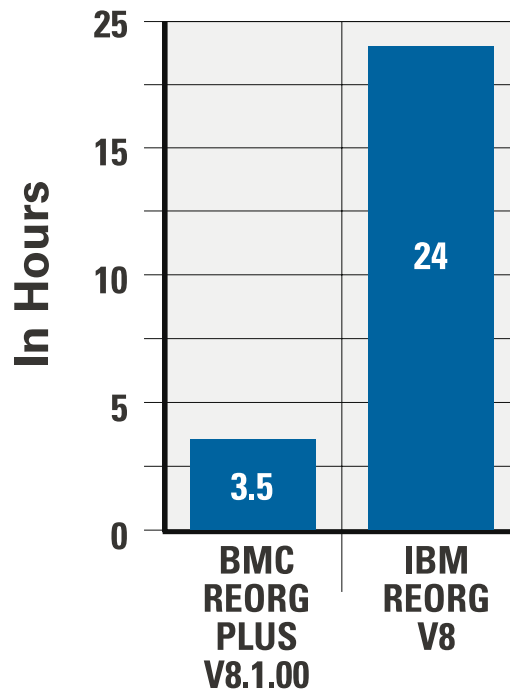
Evaluating Software Costs

Analyzing the factors that contribute to a software investment can be a daunting and confusing task because requirements and IT environments vary. The Aberdeen Group’ initial software costs should be compared with other key factors — scalability, administrative productivity, robustness, comprehensiveness, and integration. The key is to look for sustained, reduced TCO over time — not just the initial software investment.

BMC Leads with Speed

BMC provides the most comprehensive set of data management tools and utilities in the industry. We began responding to customers’ needs by developing DB2 utilities and point products. Customer requirements quickly drove product needs beyond the minimal level of functionality provided by the base utilities shipped with DB2. BMC led the way with the development of innovative, patented technology to more efficiently manage DB2 databases. Today, the BMC DB2 utilities are fully integrated with BMC performance, administration, and recovery solutions.

REORG Utility Comparison



In July 2006, a large retail manufacturer asked a team of BMC DB2 specialists for help in solving a DB2 availability and scalability problem. The manufacturer had a large DB2 for z/OS SAP environment and needed to perform routine DB2 maintenance during a limited window of availability. The customer had data in excess of 40GB in one segmented table space. In comparing BMC REORG PLUS V8.1.00 with IBM DB2 V8 REORG, the customer found that the BMC utility delivered 20-plus hours of additional availability.

Reducing CPU Usage Increases TCO

BMC DB2 utilities help manage the efficiency, responsiveness, and performance of mission-critical DB2 for z/OS applications by reducing CPU consumption, batch run times, and online transaction response times. BMC DB2 utilities are not in contention with the same resources used by DB2. For example, BMC LOADPLUS for DB2 and BMC UNLOAD PLUS for DB2 do not use the same DB2 buffer pools to load and unload data as the IBM utilities use. This allows for optimal utility processing and reduced costs because fewer CPU cycles and execute channel programs (EXCPs) are used.

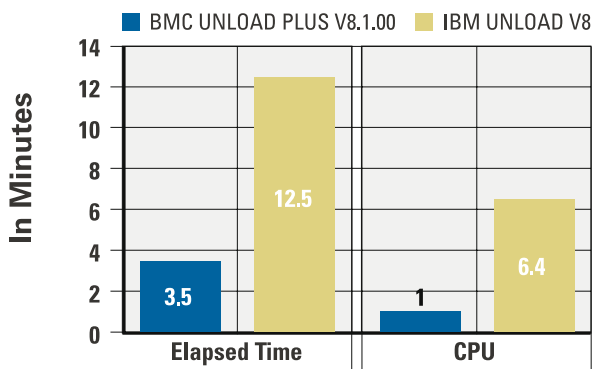
Elapsed times are also reduced because load and unload tasks are not restricted to processors in a single system. BMC LOADPLUS for DB2 and BMC UNLOAD PLUS for DB2 have built-in system intelligence that allows tasks to be distributed automatically to the least-busy processors within the system.

The Cost of Productivity – More than TCO

At one time, database utility benchmarks were just about speed. But today, measuring the value of technology to reduce TCO means examining the cause, cost, and consequences of downtime.

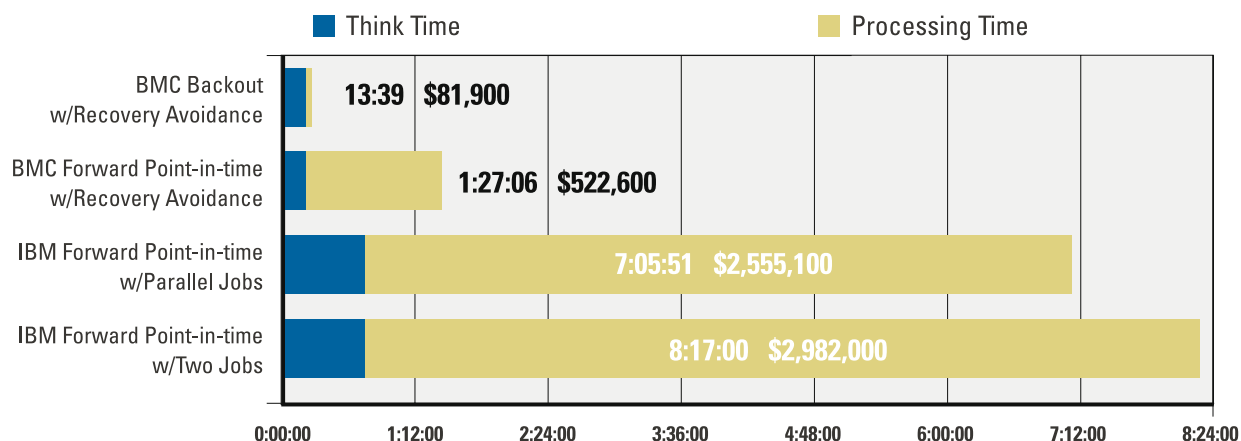
Computing the actual cost per minute for an offline application is difficult because you must consider the type, size, and complexity of an application, as well as the amount of traffic hitting an application. According to Information Access Company, industry-standard figures reveal the average downtime for an e-commerce application can cost companies \$2,500 to \$7,800 per minute. For ERP applications, downtime can cost \$6,400 to \$7,900 per minute, and for data warehouse applications, downtime can cost \$5,800 to \$6,300 per minute.

UNLOAD Utility Comparison



A large Asian bank with a critical online transaction DB2 application took advantage of BMC UNLOAD PLUS for DB2. Customer satisfaction and response time were critical to success. They needed to migrate a table of approximately 45 million rows with 37 partitions.

Cost Savings Using BMC Software Recovery Management Solution for DB2



A company using standard IBM DB2 V8 utilities to run a production application ran an offline database recovery that took more than eight hours. Using a median downtime figure of \$6,000 per minute, the cost to the business was approximately \$3 million in lost revenue. However, when the company used BMC Recovery Management for DB2 solution, the downtime was less than 14 minutes – resulting in a savings of more than \$2.9 million.

Robust Solutions — Not Just Utilities

Base utilities are simply not adequate for business-critical, continuous availability demands. Today’s data-intensive DB2 environments require the industry’s best data management solution — tools that are fully integrated, easy to use, non-disruptive, and have built-in intelligence and automation.

For companies seeking the best return on their DB2 software investment, BMC offers integrated, high-performing DB2 tools and utilities for cost-effective recovery, performance, and administrative solutions.

BMC DB2 Solution	Category of Solution
BMC Administrative Assistant for DB2	Reduces time and effort spent creating and managing DB2 databases
BMC Database Administration for DB2	Reduces complexity of managing DB2 across multiple subsystems and includes high-speed integrated utilities
BMC SQL Performance for DB2	Proactively analyzes and tunes SQL code with minimal overhead
BMC Database Performance for DB2	Optimizes database objects to deliver high performance and availability
BMC System Performance for DB2	Automates tuning of DB2 subsystems to meet SLAs
BMC Recovery Management for DB2	Performs rapid recovery from disasters or application and user errors with no downtime

Summary

At BMC, we are committed to providing you the best database tools and utilities for the lowest total cost of ownership. We continue to deliver on that promise with DB2 performance, administration, and recovery utilities and solutions. We augment our technology with one of the best customer support organizations in the industry to ensure that when you choose BMC, you are getting the most from your software investment.

“In 1989, we had determined that the IBM utilities in DB2 just couldn’t keep up with our workload,” said Robert Goodman, senior database administrator, Florida Hospital. “IBM brought BMC Software in as a vendor showed us their products and actually recommended that we consider the BMC Software products for our volume and needs. We went through negotiations, closed the deal and have been using BMC utilities ever since.” The hospital frequently has benchmarked BMC against major competitors during the last several years. “In every case, we found that when it came to availability and features, the other market players just couldn’t touch the BMC utilities — at least not in our environment,” Goodman said.

End Notes:

1 Peter Kastner, Vice President and Research Director, Information Technology, Aberdeen Group, Inc.



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About BMC Software

BMC Software delivers the solutions IT needs to increase business value through better management of technology and IT processes. Our industry-leading Business Service Management solutions help you reduce cost, lower risk of business disruption, and benefit from an IT infrastructure built to support business growth and flexibility. Only BMC provides best practice IT processes, automated technology management, and award-winning BMC® Atrium™ technologies that offer a shared view into how IT services support business priorities. Known for enterprise solutions that span mainframe, distributed systems, and end-user devices, BMC also delivers solutions that address the unique challenges of the mid-sized business. Founded in 1980, BMC has offices worldwide and fiscal 2006 revenues of more than \$1.49 billion. Activate your business with the power of IT. www.bmc.com.

