

## OPERTUNE for DB2



### Key benefits

- > Increases application availability by dynamic tuning of DB2 subsystems
- > Maximizes and adapts system resources to adjust to workload fluctuations
- > Provides enhanced operations management without affecting users
- > Works in synergy with other components of the System Performance for DB2 solution to deliver the only proactive approach for maximizing system performance
- > Exploits the functions and features of DB2 version 8.1

### BUSINESS CHALLENGE

Critical business applications are constantly changing to respond to the rapidly changing marketplace. Managing the systems that support your business applications places a heavy burden on your IT department. The availability, complexity and rate of change required to support business applications are creating performance bottlenecks in overburdened systems. You need tools that make it easy to manage the volume and complexity and address the shortage of experienced technical staff.

### BMC SOFTWARE SOLUTION

OPERTUNE for DB2 is the most comprehensive solution available for changing DB2 parameters and correcting operational problems that affect overall DB2® Universal Database for z/OS and OS/390 system performance. OPERTUNE ensures accurate system resource allocation and delivers ease-of-use functionality when realtime performance management matters to your bottom line.

#### Increases availability

OPERTUNE goes beyond DB2 in its ability to dynamically manage system parameters. DSNZPARMs in DB2 are parameters that are set by database administrators or system programmers that specify how DB2 should run in certain environments.

DSNZPARMs (ZPARMs) are set at installation, but sometimes they need to be changed based on environment, workload, or application changes. DB2 maintains hundreds of ZPARMs in Load Modules. DB2 allows for the changing of ZPARMs dynamically.

Since there are several hundred ZPARMs, the combinations that a user could use in any Load Module are endless. Though DB2 allows the changing of ZPARMs without an outage, the administration of telling the system which Load Module to invoke under what circumstances is still up to the user. This administration becomes not only an administrative nightmare, but can negatively impact DB2 system performance and availability.

OPERTUNE for DB2 is unique in its ability to offer true DB2 system availability. OPERTUNE works at the individual item level, with no bearing on other values. The user can change one or all ZPARMs at any time, on the fly, without taking DB2 down.

Additionally, OPERTUNE allows the user to define the time scope for the change. Changing Load Modules in DB2 is not as flexible. In DB2, once the Load Module is in place, a value cannot be changed or replaced unless the entire Load Module is replaced.

### Accurate resource allocation

It is no longer necessary to accept less-than-optimum resource allocation. Setting parameters to match an average workload is not acceptable at peak usage, and setting parameters in this way wastes resources when the workload is light.

OPERTUNE allows you to assign resources to match your needs as your needs change. OPERTUNE reduces under- and over-allocation of resources by allowing you to tune for workload changes. With OPERTUNE, changes are made automatically when incorporating the unique scheduling feature in OPERTUNE. When used with the other components in the SmartDBA System Performance for DB2 solution, such as MAINVIEW for DB2, optimum system performance can be achieved.

### Enhanced operations management

OPERTUNE runs as a started task in the MVS environment and is completely independent from DB2. OPERTUNE requires no threads, plans, or DB2 authorizations. More importantly, OPERTUNE has no user modifications (usermods) or dynamic hooks in DB2.

OPERTUNE provides additional operations management. Unique features of OPERTUNE such as on-demand castouts and the ability to change castout owner provide DBAs and systems programmers with powerful tools to balance the I/O load in a data sharing environment and reliably access DB2 data sets directly. In addition, OPERTUNE can also perform the following tasks without interruption of services or users:

- > Cancel any active thread without canceling the CICS region, IMS region, or TSO user ID
- > Cancel any inactive thread without canceling the TSO, QMF, or batch address space
- > Cancel all threads accessing a tablespace (after optionally ending it)
- > Dynamically maintain active log datasets
- > Quickly free tablespaces of all users

## SMARTDBA SYSTEM PERFORMANCE FOR DB2 SOLUTION

OPERTUNE for DB2 is available as a stand-alone product or as a component in the SmartDBA System Performance for DB2 solution. The SmartDBA System Performance for DB2 solution is a suite of tools that when used together deliver the only proactive approach to continuously achieve maximum performance.

For example, the Pool Advisor for DB2 component can dynamically adjust DB2 buffer pools as workloads change. OPERTUNE working with Pool Advisor can dynamically change EDM, RID and sort pools without any DB2 outage. When OPERTUNE is used with the MAINVIEW for DB2 component in the solution, OPERTUNE can dynamically make a response to the correction of DB2 exceptions that MAINVIEW has detected.

### SUMMARY

To determine the immediate ROI that OPERTUNE can provide, consider the costs of:

- > Unscheduled and scheduled outages
- > Slow response time
- > Reduced productivity
- > CPU time wasted on inefficient processing
- > Hardware and software upgrades

All of these costs can be drastically reduced with OPERTUNE. OPERTUNE delivers performance improvements and CPU savings, extends the life of hardware, and reduces outages.

### Helping you maintain advantage

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### About BMC Software

BMC Software, Inc. [NYSE:BMC], is a leading provider of enterprise management solutions that empower companies to manage their IT infrastructure from a business perspective. Delivering Business Service Management, BMC Software solutions span enterprise systems, applications, databases, and service management. Founded in 1980, BMC Software has offices worldwide and fiscal 2004 revenues of more than \$1.4 billion. For more information about BMC Software, visit [www.bmc.com](http://www.bmc.com).



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