



# 20 Reasons to Switch to BMC CMF MONITOR

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## **EXECUTIVE SUMMARY**

BMC CMF MONITOR (CMF) is the industry's only high-performance, low-cost alternative to RMF (Resource Measurement Facility). CMF produces SMF type 70-79 records identical to those that RMF generates. In fact, BMC CMF MONITOR is the only other z/OS monitor that provides these critical records.

In addition, BMC CMF MONITOR provides numerous productivity-enhancing features that are superior to IBM's RMF solution. These unique features allow organizations that leverage the powerful z/OS platform to shorten their problem diagnosis time and reduce the number of calls made to systems programmers.

The following list comprises 20 unique reasons to switch to BMC CMF Monitor, showcasing features that support key initiatives within your IT organization including how to:

- » Effectively manage your mainframe enterprise
- » Reduce your Total Cost of Ownership (TCO)
- » Boost efficiency through better usability
- » Effectively manage your mainframe storage
- » Increase security
- » Provide robust, comprehensive reporting

## **EFFECTIVELY MANAGE YOUR MAINFRAME ENTERPRISE:**

### **1. INTEGRATES YOUR z/OS PERFORMANCE-BASED ALARMS WITH YOUR ENTERPRISE BUSINESS SERVICE MANAGEMENT (BSM) SYSTEM**

Since BMC CMF MONITOR uses the BMC MAINVIEW Infrastructure, you can create BMC MAINVIEW Alarm Manager alarms that feed into your enterprise-wide business service management service and impact models. This allows your z/OS systems to provide much better visibility into the impact of z/OS-based outages or slowdowns on your underlying business applications.

### **2. MULTIPLE PARALLEL SYSPLEX SUPPORT FOR VIEWS**

BMC CMF MONITOR provides Single System Image support for the majority of existing views. In a Parallel Sysplex environment, you can have workloads dispersed across many z/OS images that are defined in the Sysplex. It will therefore be important to monitor jobs, delays, workloads, and resources independent of an individual z/OS image. Additionally, BMC CMF MONITOR provides views like the online reports introduced by RMF and these views are tightly integrated with existing views.

The BMC CMF MONITOR Single System Image feature is not limited to a single Parallel Sysplex. BMC CMF MONITOR can view data from multiple Parallel Sysplexes all on one display.

BMC CMF MONITOR benefits include:

- » Giving you control of your Sysplex
  - Provides more critical information to help you make better decisions about your Sysplexes.
  - Allows single-point-of-control for your jobs, resources, devices, and workloads.
- » Ability to monitor mixed environments
  - Gives you the power to monitor single systems, a sysplex, or multiple sysplexes.

## **REDUCE YOUR TOTAL COST OF OWNERSHIP:**

### **3. USES FEWER CPU RESOURCES IN THREE WAYS**

- » CMF uses less CPU to accomplish the same functions
  - All of CMF data collection and type-7x record creation is done from a single address space, which in benchmarking has shown to save up to 50% of the total CPU usage.
- » Exploits zIIP processor engines in addition to monitoring them
  - On z-type processors, BMC CMF MONITOR can offload eligible sampler work from standard (and more expensive) CP processor engines to zIIP specialty processors, further improving your Total Cost of Ownership (TCO).
- » CMF MONITOR shares data collection with MAINVIEW for zOS
  - CMF exploits the data collection engine used by MAINVIEW for zOS, so there is no additional overhead to own and operate a full suite of zOS performance monitoring tools with CMF & MVzOS. This provides a significant CPU savings in addition to the synergy between the products

### **4. USES AN INFRASTRUCTURE COMMON TO ALL BMC MAINVIEW MONITORING PRODUCTS**

BMC CMF MONITOR makes use of the BMC MAINVIEW Infrastructure technology. This same technology is used by all other BMC MAINVIEW products, including BMC MAINVIEW for z/OS, BMC MAINVIEW for USS, and BMC MAINVIEW Storage Resource Management. The BMC MAINVIEW Infrastructure also provides a common web based interface MAINVIEW Explorer, which supports all MAINVIEW products, including the automation products.

BMC CMF MONITOR benefits include:

- » Reduced training costs
  - A similar "look and feel" is shared by several related products
- » Stability and reliability
  - You can feel more comfortable knowing that the technology used in BMC CMF MONITOR is also the base for many other products as well.
- » Reliability, availability and serviceability
  - The separation of components gives you extra assurance of reliability, because if a single component fails, the others are unaffected.

## **EFFICIENCY THROUGH BETTER USABILITY:**

### **5. VIEW MULTIPLE SYSTEMS ON ONE SCREEN**

BMC CMF MONITOR can provide data from a traditional z/OS system, a single Parallel Sysplex, multiple Parallel Sysplexes, or a mixture of traditional or Parallel Sysplexes. The data can include historical data, combined or summarized data from different systems, and/or historical recording, all at the same time. These systems can be either local or at remote locations. For example, you can have the JDELAYZ view looking at jobs being delayed on all of your z/OS systems in your entire enterprise.

BMC CMF MONITOR benefits include:

- » Time savings
  - You can get a complete performance picture of all your z/OS systems.
  - You don't need to logon to individual systems and toggle between them to compare performance between systems.
- » Cost savings
  - Eliminates the need to have multiple consoles for monitoring multiple systems.

## **6. HISTORICAL RECORDING FOR ALL ONLINE VIEWS**

BMC CMF MONITOR provides recording of online view information (all views with the exception of the data set activity view - DSIO) into historical datasets. This allows you to analyze information from a previous time to help isolate performance problems.

BMC CMF MONITOR benefits include:

- » Isolating problems
  - Being able to look at all of the performance information that occurred earlier allows problem isolation.
- » Ability to analyze historical and real-time information from one screen
  - You are able to compare real-time information to that of another time, to ensure performance on a particular resource or workload is similar throughout different time intervals.

## **7. VIEW BOTH CURRENT AND HISTORICAL INFORMATION ON ONE SCREEN**

BMC CMF MONITOR allows you to display information in different time frames - over a single past interval or over a series of intervals - so you can compare what a system is doing now to what it was doing over the last several hours. By comparing information from different time frames - information that might be days, weeks, or even months old - on the same screen, you can easily spot and eliminate problematic trends as they develop.

BMC CMF MONITOR benefits include:

- » True comparative reporting
  - By comparing data from different time frames on the same screen, you can easily tell the difference between momentary glitches and more troublesome trends.

## **8. CURSOR-SENSITIVE ONLINE HELP**

Users of BMC CMF MONITOR Online can position their cursor on any field, column header, or on the command line to access the Help Manager Facility and obtain detailed help and recommendations about all components within BMC CMF Online. Once in the Help Manager you can then easily transfer to other topics of interest. BMC CMF MONITOR allows users to easily customize the online help. CMFMON also provides cursor-sensitive help for all screens.

BMC CMF MONITOR benefits include:

- » Reduced dependency on manuals
  - Hypertext included in the online help file minimizes the need to search through documentation.
- » Greatly shortened learning curve
  - Detailed, context-sensitive text lets you know what each field is and why that field is relevant.
  - Tuning hints and tips assist in training junior-level staff.
- » More meaningful help for your particular site
  - Online help can be customized to include suggestions and tips for problems that are unique to your data center.

## **9. SOPHISTICATED POINT-AND-SHOOT TECHNOLOGY**

The BMC CMF MONITOR point-and-shoot technology allows users to position their cursor on any value in a highlighted column and press ENTER to zoom (hyperlink) into further detail. Within customization, you can change the point-and shoot navigation path to suit your own needs and hyperlink to different views. This point-and-shoot technology is extremely flexible and powerful, yet simple to use.

BMC CMF MONITOR benefits include:

- » Ease of use and time savings
  - You no longer have to remember command names or navigate through menus.
- » Ability for Operations and Help Desk to accurately troubleshoot system problems
  - By guiding users logically through progressively more detailed views, hyperlinks allow those with limited skills to troubleshoot system problems.

## **10. MENU DRIVEN CUSTOMIZATION OF ALL ONLINE VIEWS**

Typing 'CUST' on the command line within any view allows you to enter the customization facility and completely alter views to suit your own needs. The actions available within customization are as follows:

1. Change order of sorting in columns.
2. Change hyperlink commands for each highlighted column.
3. Exclude columns that are of no interest.
4. Include columns that are hidden as default or excluded previously.
5. Change threshold values and colors.
6. Use filtering to only display matching values.
7. Move columns around to redesign views.
8. Modify graphing requirements and/or create summary views.

BMC CMF MONITOR benefits include:

- » More meaningful views for your particular site
  - Easy to customize to get data you want.
  - Views can be easily tailored to fit the exact needs of your shop.

## **11. SUMMARIZE ALL SYSTEMS OVER A USER-DEFINED TIME RANGE**

BMC CMF MONITOR provides the capability of summarizing data on all systems over a time period. You can summarize information on resources and workloads across multiple systems across a user defined time range.

BMC CMF MONITOR benefits include:

- » Analyze shared resources
  - Being able to look at shared DASD from all systems that connect to the devices and to summarize the information to show the total connect time as reported from all systems.
- » The ability to see workloads on any system over a given time period
  - You are able to see the occurrence of individual jobs or complete workloads from all systems. The system can be a mixture of Parallel Sysplex and traditional z/OS environments. This is especially useful in environments where critical work may be dispatched to any of several participating z/OS images.

## **EFFECTIVELY MANAGE YOUR MAINFRAME STORAGE:**

### **12. ONLINE SMS VIEWS**

BMC CMF MONITOR provides comprehensive SMS information online.

The SMS views provide utilization and performance information for a particular SMS storage group and information on a workload delay caused by contention for devices in the group. There is also a SMS view to provide utilization and performance of SMS storage groups. The devices in each storage group are monitored as a single entity based on SMS definitions that you have established.

BMC CMF MONITOR benefits include:

- » Ability to maximize SMS performance
  - BMC CMF MONITOR SMS views make it easy for you to spot performance problems.

### **13. ONLINE DATA SET ACTIVITY VIEW**

BMC CMF MONITOR provides an online DSIO view that displays I/O activity for specified data sets. This component allows users to look at I/O activity from a user ID, job, data set, or volume perspective.

BMC CMF MONITOR benefits include:

- » More accurate problem diagnosis
  - Observing specific I/O activity allows you to spot perpetrators rather than just victims.
- » Ability to correlate service-level problems
  - You are able to identify problems across the system caused by the same perpetrator.

## **INCREASED SECURITY:**

### **14. COMMON SECURITY PACKAGES VIA SYSTEM AUTHORIZATION FACILITY (SAF)**

All BMC monitoring products provide a security interface to utilize SAF for controlling user access to systems, products, actions, and/or views. You can define security to allow or disallow user attempts to:

1. Invoke any action
2. Display any view table
3. Display a group of related views
4. Invoke a specific action
5. Access resources that the product function requires
6. Access other systems or BBI-3 products
7. Logon to systems

BMC CMF MONITOR benefits include:

- » Increased security
  - Gives administrators better control over user access.

## **BETTER REPORTING:**

### **15. ADDITIONAL SMF TYPE 240 RECORDS**

BMC CMF MONITOR generates SMF Type 70-79 records that are identical to those produced by RMF. In addition, BMC CMF MONITOR produces a large range of SMF Type 240 records. These records gather detailed information on the performance of resources such as TSO commands, CSA usage, and more. This additional data can be used as input into other applications such as SLR, MICS, and MXG.

BMC CMF MONITOR benefits include:

- » More complete feedback on the health of your system
  - By getting more complete batch reporting, you have greater control over your MVS system.
- » More complete use and exploitation of SLR, MICS, and MXG
  - Since each of these products report on the data in BMC CMF MONITOR's 240 records, you can get additional return on your investment in these products.

### **16. MULTIPLE SYSID BATCH REPORTING**

The BMC CMF Analyzer produces batch reports based on SMF data recorded. In the past, users could only produce reports based on data from one system at a time. With CMF's Multiple SYSID support for batch reporting, BMC provides the ability to concatenate input files from more than one system and then produce a report based on the combined data. All you do is define within the Report Control statement the systems you want included. For example SYSID=SYSA, SYSC, SYSF.

BMC CMF MONITOR benefits include:

- » Reports that are suitable for management
  - Multiple SYSID reports give a summarized view of all systems.
- » Allows for easier management of your multiple systems
  - Fewer reports are required to give you the same information.
  - No manual calculations are needed.

### **17. SYSPLEX SUPPORT AND FLEXIBLE BATCH REPORTS**

BMC CMF Analyzer provides a control card that allows you to report on any Sysplex environment. The Sysplex support allows you to produce reports based on data collected from all z/OS images within a Sysplex. CMF Analyzer also allows users to produce reports for specific times or shifts. Keywords like DAILY, WEEKLY, WORKWEEK, PERIOD, SHIFT, and INTERVAL make this very easy to accomplish.

BMC CMF MONITOR benefits include:

- » Giving you control of your Sysplex
  - Provides more critical information to help you make better decisions about your Sysplex.
- » Ability to monitor mixed environments
  - Gives you the power to monitor both Goal Mode and Compatibility mode in your Sysplex.
- » Added Flexibility
  - You can tailor reports to fit your needs.



## 18. TABLE OF CONTENTS FOR EASY LOCATION OF REPORTS

BMC CMF Analyzer produces many different reports. A table of contents is included so that the reports can easily and quickly be found. The table of contents shows the report number, page number, and a brief description of the report.

BMC CMF MONITOR benefits include:

- » Easy location of reports
  - Since BMC CMF MONITOR lists reports with their page numbers, you don't waste time shuffling through other reports to find the one that you need.

## 19. CORRELATED AND SUMMARIZED INFORMATION ON SINGLE REPORTS

The BMC CMF Analyzer produces batch reports that have fields and values that have already been calculated or have been processed through a particular algorithm. BMC CMF MONITOR reports can combine different record types for each individual report.

BMC CMF MONITOR benefits include:

- » More reliable information and added convenience
  - BMC CMF MONITOR calculates additional fields and values for you, making manual calculations unnecessary.

## 20. BATCH REPORT FOR CSA USAGE BY ADDRESS SPACE

BMC CMF Analyzer provides Common Storage Usage Detail and Summary reports. They report the average, minimum, and maximum values of common storage data collected by CMF type 240-29 records. These reports display CSA usage by each individual address space.

BMC CMF MONITOR benefits include:

- » Maximized system uptime
  - Improved CSA reporting allows you to minimize system outages by tuning your CSA more proactively.
- » More reliable information and added convenience
  - BMC CMF MONITOR calculates additional fields and values for you, making manual calculations unnecessary.

## BUSINESS RUNS ON IT. IT RUNS ON BMC SOFTWARE.

Business thrives when IT runs smarter, faster, and stronger. That's why the most demanding IT organizations in the world rely on BMC Software across both distributed and mainframe environments. Recognized as the leader in Business Service Management, BMC offers a comprehensive approach and unified platform that helps IT organizations cut cost, reduce risk, and drive business profit. For the four fiscal quarters ended March 31, 2009, BMC revenue was approximately \$1.87 billion. Visit [www.bmc.com](http://www.bmc.com) for more information.

