



BSM — A UNIFIED PLATFORM FOR SIMPLIFYING AND AUTOMATING I.T.

By Jim Grant, Senior Vice President of Strategy and Corporate Development, and Bill Emmett, Senior Manager of Strategic Marketing, BMC Software

Most IT organizations continue to struggle with reducing IT costs, improving the quality of service, managing risk, increasing business impact, and providing greater transparency. Why does this continue to be the case, since these challenges have been confronting IT leaders for years? Because in spite of significant improvements that many IT organizations have made in many of these areas, the expectations of the business continue to grow each year. IT leaders cannot simply tackle these issues in isolation, but must address them simultaneously. The fact remains that these are tough, real-world challenges facing nearly every IT organization today.

Business Service Management (BSM) is helping IT organizations tackle these universal challenges. BSM provides a comprehensive and unified platform that simultaneously reduces IT costs, increases business impact, improves quality of service, manages risk, and provides transparency. This IT management platform simplifies, standardizes, and automates IT processes so that IT can operate more efficiently and lean. But just as important, with BSM IT organizations have the trusted information needed to make effective decisions. They can prioritize work based on business-critical services and can orchestrate workflow across core IT management functions.

Here's a practical example of how a BSM platform greatly improves a day-to-day IT challenge — responding to trouble tickets. Without BSM, a business user (usually already irritated or upset about poor IT service delivery) calls the service desk, and the service desk forwards a ticket to someone else in operations to start troubleshooting the issue. This sets off a chain reaction among various groups, marathon conference calls, and a barrage of email exchanges to determine the root cause of this issue. Frequently, many hours or even days may go by before the root cause is identified, the end user is notified, and the issue finally gets remediated. With BSM, however, many IT issues can

be proactively identified and resolved based on detectable deviations from expected performance across the infrastructure.

With BSM, an event is generated, the service affected is identified, a trouble ticket is automatically opened, and the appropriate business priority is assigned. At that point, the service desk can reach out to the end user to proactively notify that individual of the issue and even indicate how long it will take to remediate it. Or the issue can be automatically remediated and the service can be restored without the end user ever realizing that the issue had even existed. In many cases the ticket is created, remediated, and closed without human interaction.

The unified platform for running IT

BSM solutions simplify and automate many IT management processes and functions. Without BSM, IT organizations may struggle with manual processes held together by paper-based forms, spreadsheets, email, personal interactions, and tribal knowledge. Without common information about IT assets, configurations, the services they support, and the business priority, individuals do their jobs from their own vantage point — which is often the component of the technology stack that they are responsible for managing.

In fact, IT organizations face many of the same challenges that business leaders faced before the advent of Enterprise Resource Planning (ERP) systems. What ERP brought to business was a platform that enabled the enterprise to simplify and integrate formerly isolated functional areas. This enables processes to scale easily, while functions can respond more quickly. IT can meet commitments more consistently, improve business asset utilization, and provide greater transparency. ERP has empowered enterprises to simplify, standardize, automate, and integrate business processes using a common data model with a shared definition of the customer, materials, products, and so forth.



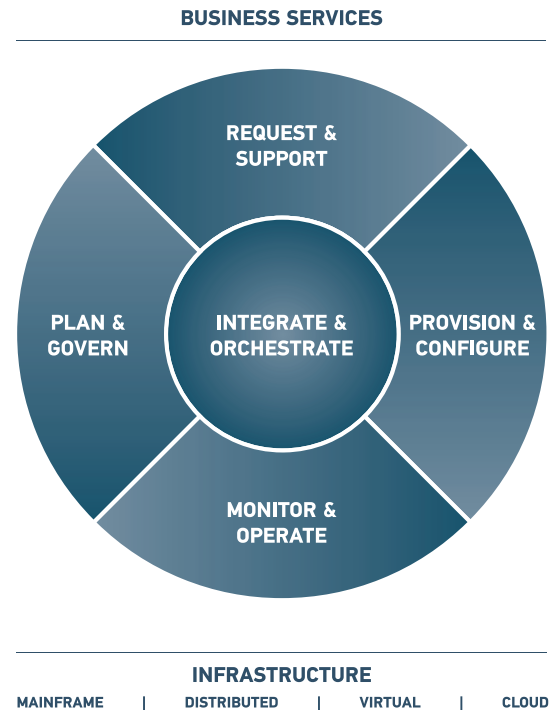
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BSM offers the same benefits to the management of IT that ERP has brought to the management of the enterprise. Like ERP, BSM is a platform — a mechanism through which information and processes are shared across multiple components so that the output of one phase of a process becomes the input for the next phase. As a platform, BSM brings consistency to operations and provides a common way of communicating, thereby accelerating the flow of process steps across functional areas within IT. There is one big difference, though, between early ERP systems and BSM. BSM has been architected to be implemented incrementally. The real power of the BSM platform is that it can be adopted based on the critical initiatives already underway, so that your platform can “grow into” an ERP for IT over time, without many of the risks that were inherent in ERP implementations.

The BSM platform helps IT organizations manage all services across their lifecycle — from the definition of services along with their business priority (and value) through automating the ability to request services, build and configure them consistently, deploy them automatically to reduce errors, monitor and operate them, and provide proactive support when issues arise.

The figure on this page shows the key phases of the service lifecycle managed by BSM. This notion of a lifecycle illustrates how the critical nature of BSM contrasts sharply with silo-based technologies and workflows that may work well within a particular team or department, but fall down when groups need to work together. Effective integration and orchestration of IT processes is absolutely

critical to managing the service lifecycle. BSM provides the platform that makes this integration a reality.



BSM — A Unified Platform for Service Lifecycle Management

Adopting BSM in your organization

Successful enterprises are adopting BSM by building roadmaps based on their top initiatives. As the pioneer and market leader for BSM solutions, BMC has closely mapped the adoption of BSM to the following initiatives:

- » Application performance management
- » Asset and software license management
- » Change and release management
- » Compliance
- » Data center automation
- » ITIL
- » IT cost transparency
- » Mainframe cost optimization
- » Proactive operations
- » Self-service
- » Service desk consolidation
- » Vendor management
- » Virtualization and Cloud computing

DATA CENTER AUTOMATION

Driven by the need to cut costs through the elimination of manual efforts, data center automation is perhaps the most breakthrough initiative undertaken by IT organizations today. Cost cutting, however, is not the only driver behind data center automation. Eliminating the errors associated with introducing change into IT is another major factor for these critical projects.

For most enterprises, there are five ways to approach data center automation:

1. *Configuration automation* focuses on automating system and application configuration changes using a policy-based approach.
2. *Compliance automation* helps organizations understand the current configurations of IT services and assets and enforces compliance with standard configurations in accordance with policies and regulations.
3. *Event automation* mechanizes the handling of a wide range of events by recognizing the performance issue, automatically shutting down and restarting the application, and logging an incident record with a complete audit trail of what actions were taken and when. Automating the handling of standard events — such as automatically restarting a service or application — produces the complete audit trail of actions taken without requiring human intervention.
4. *Job scheduling and workload automation* eliminate manual efforts related to job scheduling and managing workloads in both distributed and mainframe environments.
5. *Mainframe automation* deals with simplifying complex series of mainframe tasks to better utilize these resources.

These data center automation initiatives are delivering gratifying results. CARFAX, a leading provider of vehicle history information, has reduced manual job scheduling efforts by nearly 50 percent. Virgin Media, a leading entertainment and communications company, is accelerating time to market, shrinking release cycles, and improving application quality by automating the packaging and code promotion processes to roll out application releases and updates from development to production environments. For example, the company has cut the time and effort required for Web-based application server builds from 90 minutes down to 3 minutes.

MAINFRAME COST OPTIMIZATION

Mainframe cost optimization initiatives typically have two primary objectives. The first is to reduce the spending in recurring mainframe infrastructure costs by optimizing the amount of MIPS the mainframe consumes. The second is to reduce the cost of labor required to maintain mainframe systems. There are a variety of ways to approach mainframe cost optimization:

1. On the infrastructure side, *capacity planning* is one effective way of managing MIPS. By putting the right applications on the right systems, coordinating job scheduling, and acquiring only those resources that are necessary, companies are accomplishing a lot more with the same infrastructure. A large bank based in Latin America used BSM solutions to save MIPS and CPU cycles. Today, the bank does as much work with its mainframe as its competitors that are consuming up to four times the number of MIPS.
2. *DB2 SQL performance* includes identifying and fixing bad SQL to reduce capacity requirements and deliver higher levels of availability and performance.

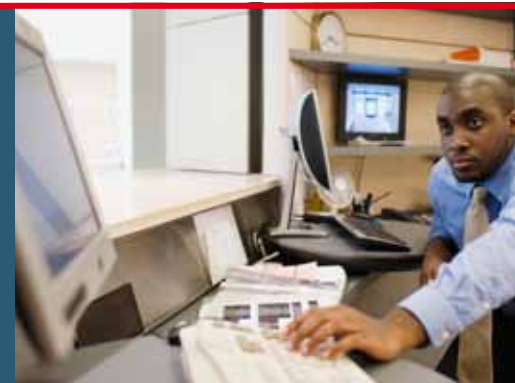
3. *Storage Resource Management* provides the ability to minimize “extra” or underused storage while continuing to increase availability.
4. *zIIP (IBM System z9 Integrated Information Processor) exploitation* uses zSeries specialty engines for subsystem monitoring to reduce mainframe capacity costs.

PROACTIVE OPERATIONS

Proactive operations initiatives require a fundamental shift away from how quickly IT can resolve issues, such as the mean-time-to-repair (MTTR) to the mean-time-between-service-failures. IT organizations often approach proactive operations in the following four key project areas:

1. *Proactive availability and performance management*, which involve examining trends in availability and performance to establish where problems exist before they become disruptive to the business.
2. *Capacity optimization*, which reduces the threat of brownouts that degrade or cripple critical business services, and provides insight that can result in making more effective capacity management decisions.
3. *Configuration automation*, as with data center automation, involves providing an automated way of staying ahead of problems and an effective means of making changes thoughtfully. Independent research shows that 80 percent of downtime is caused by poorly implemented changes. Improving the way the changes occur in the data center and on client infrastructure is a proven way to reduce the frequency of failure for critical business services.
4. *Decision-support analytics*, which can be used by IT organizations to help rationalize seemingly innocuous information and make insightful decisions on how to respond.

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Organizations from many industries have seen significant improvements in the availability of key business services with proactive operations, demonstrating how IT's success shifts from how quickly IT can resolve faults to how frequently problems occur. For example, a large European utility company decreased business service events by 40 percent and server fault events by 35 percent with solutions to reduce the mean-time-between failures.

VIRTUALIZATION AND CLOUD COMPUTING

Most enterprises today are using at least some degree of virtualization to contain costs and increase business agility. The most common virtualization efforts are at the systems level and involve pooling of resources through storage area networks. Most IT organizations plan to expand their use of virtualization and Cloud computing. They are making the transition from physical to virtual by looking at four key areas:

1. *Virtual lifecycle management* addresses the challenges associated with virtual machine (VM) sprawl, ensuring that VMs and associated components are created with a specific purpose, carefully accounted for, and managed consistently.
2. *Virtual performance management* looks at the performance of IT environments both at a virtual level and at the physical infrastructure that lies beneath it.
3. *Virtual compliance management* further addresses VM sprawl by ensuring VMs are declared and configured correctly.
4. *Private Cloud computing* provides more sophisticated virtualization and enables additional abstraction between the physical infrastructure and the IT service that is ultimately running on the infrastructure.

Through effective compliance and management of VMs, IT organizations are getting better control on the hardware infrastructure and software licenses they are using in virtual environments. A leading healthcare provider, for example, reclaimed underutilized hardware and software licenses. As a result, the company was able to push back hardware refresh and hardware acquisition cycles.

THE NEXT EVOLUTION OF BSM: DYNAMIC BSM

Dynamic BSM will ultimately take BSM to the next level by leveraging shared resource pools, deliver tiered service levels, and ensure predictable service costs. Through a greater degree of policy automation, IT issues can be avoided by intelligently adapting to both recurring and unplanned demands. The result: Your IT organization gets the maximum value and optimal performance from every resource.

With *dynamic BSM*, issues are automatically detected and resources are reconfigured before they interfere with business operations — whether you're running on a dedicated infrastructure or a virtualized one, and whether you are using internal data center resources or leveraging the Cloud. Tiered service levels allow you to balance the cost of service delivery with business value, so that your highest value services get the resources they need in real-time, while adapting to the changing demands of the business. With *dynamic BSM*, IT leaders can act as a service broker, combining internal resources with those from external providers to ensure critical business needs are met at an appropriate cost. Dynamic BSM is characterized by a real-time infrastructure and continuous resource optimization to:

- » Scale services up or down based on business and technology-driven triggers
- » Deliver new services immediately, essentially eliminating the lag time between business decisions and IT's enablement of them

As BSM becomes more dynamic, IT management becomes more predictive, proactive, and preventive. Today, 70 percent of IT issues are reported by end users. The goal with dynamic BSM is to invert that ratio and proactively resolve the issues, preventing them from impacting end users.

With *dynamic BSM*, business value determines the cost of service delivery. Services that are worth the premium to the business scale readily, are highly available, and run on the most critical infrastructure. The services that are most important to the business drive the service level agreements (SLAs), as well as access to resources that support those business requirements. Industry and internal best practices, such as those based on the IT Infrastructure Library® (ITIL®), are automated. Policies replace manual workflows, and a series of tasks is assembled so that the management layer makes intelligent decisions on behalf of the enterprise. When necessary, IT staff members are engaged for operator-assisted actions.

ABOUT THE AUTHORS

Jim Grant is the senior vice president of strategy and corporate development at BMC Software. Prior to his current position, Grant was senior vice president and general manager of the Enterprise Service Management business unit at BMC. Grant joined BMC in 2003 from Hewlett-Packard, where he was the vice president and general manager of the OpenView software business. He spent more than 20 years in key management positions across the functional spectrum, including manufacturing and materials management, product marketing, operations, and general management. After earning his master's degree from the University of Colorado, Grant taught operations management at the university.



Bill Emmett, senior manager in BMC's strategic marketing organization, has been a practitioner, innovator, and marketing leader in the IT management software industry for nearly 15 years. He has been a part of BMC since 2008, where he leads the Thought Leadership team. Additionally, he is responsible for developing and articulating BMC's overall message to the market — Business Service Management. Before joining BMC, he held R&D, strategy, and marketing leadership positions at HP Software. Emmett holds a master's degree in business administration and a bachelor's degree in accounting and computing information systems, both from Colorado State University.



BUSINESS RUNS ON I.T. I.T. 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 June 30, 2009, BMC revenue was approximately \$1.88 billion. For more information, visit www.bmc.com.

Take the next step

Ever since BMC introduced BSM in 2003, it has evolved significantly to meet the increasingly rigorous demands of IT organizations around the world. To learn about how BSM can help you simplify and automate IT, visit www.bmc.com/bsm.