

BMC CONTROL-M Workload Automation

Manage IT workload according to business priorities

Business services rely on timely, efficient, cost-effective, and error-free batch processing that is able to meet both the changing demands of the business and changes in technology. Because of the importance of scheduling, all mature organizations have made an investment in one or more scheduling solutions.

However, an increase in the number and types of computing platforms being employed, along with the many different ERP and custom applications running on them, create major integration issues. What's more, the nature of "batch" production itself has changed from predominantly monolithic (date-and-time driven) to far more event-and-transaction driven, a transition that also requires integration and management. Adding to these complications, increasing mergers and acquisitions require IT to quickly absorb or integrate varied and geographically dispersed infrastructures.

As a result of these complications, outdated scheduling solutions drive up software and human resource costs, and increase the probability of costly service level penalties. They also increase the risk of delays and service disruptions, and hinder recovery times. Finally, they restrict the development and deployment time of new applications, and limit changes to the IT infrastructure that promote growth.

BMC CONTROL-M integrates the management of critical workload processes from a single point of control. With cross-application and cross-platform scheduling capabilities (such as job dependencies, workload balancing, and event-based job execution), this powerful workload automation solution enables business growth and prevents scheduling problems from developing into business problems.

With BMC CONTROL-M, you:

- › Gain a faster, cheaper way to manage workload with a unique architecture that supports growth and provides unmatched integration
- › Reduce the number of failure points and delays caused by manual processes with a single, unified scheduling interface — regardless of platform
- › Eliminate your reliance on multiple toolsets and staff resources with automated scheduling processes that help you manage priorities according to business needs
- › Reduce your software footprint and deployment by as much as 80 percent with agentless scheduling

By replacing your current scheduling solution(s) with the industry-leading BMC CONTROL-M, you will:

- › Reduce costs — Lower total cost of IT and business operations
- › Reduce risk — Minimize risk due to errors and delays
- › Increase business agility and service quality — Reduce time to deliver quality services and products
- › Migrate with confidence — Minimize the risks and costs of implementation

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THE BMC CONTROL-M ADVANTAGE:

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FASTER AND CHEAPER WORKLOAD AUTOMATION

Today's batch environments rely on integrating several tools, various computing resources and IT staff. Managing that integration is expensive and risky because of manual processes and the many "moving parts".

BMC CONTROL-M has a unique architecture that provides cross-platform dependencies, a common view across all platforms and an all-encompassing GUI that delivers a single consistent way to automate the scheduled workload throughout the enterprise. This approach reduces training and provides end-to-end visibility, thus increasing operators' span of control and enabling them to manage any workload throughout the enterprise without requiring environment-specific expertise. Adding new environments into the BMC CONTROL-M configuration becomes straightforward with negligible impact on staff.

HISTORY OF TECHNICAL INNOVATION AND EXECUTION

When BMC CONTROL-M came to the market in 1985, it was part of the only suite of datacenter automation tools for the mainframe to offer a single user interface, shared calendars, common logging, common infrastructure that includes a scheduling engine and a natural mechanism for building complex relationships among output, message, media and scheduling events.

Since that time, BMC has added a long list of innovations including:

- » Agentless scheduling that can eliminate up to 80% of installed components
- » Workload Lifecycle Management facilitates moving jobs from inception and test through production while ensuring compliance with policy and audit requirements
- » Workload Virtualization that exploits dynamic deployment of physical and virtual hardware resources to ensure Service Level attainment

These innovations and the regular schedule of new BMC CONTROL-M releases is made possible by BMC's continuous reinvestment, 25% of revenues, in R&D and Customer Support.

MINIMIZE RISK OF DISRUPTION

The lack of scheduling process standardization and automation as well as budget and personnel constraints has caused an increase in the outages and incidents that impact the business.

AUTOMATION REDUCES OUTAGES CAUSED BY HUMAN ERROR

BMC CONTROL-M increases automation and reduces manual intervention with extensive job analysis and post-processing facilities. Workload administrators can define job completion scenarios that instruct BMC CONTROL-M to automatically orchestrate recovery actions when such scenarios occur.

Data movement protocols, FTP and SFTP, have become an integral part of workload automation. However, most implementations of these facilities are intended for interactive use and when injected into an automated environment, exhibit erratic behavior that may result in data quality issues. BMC CONTROL-M integrates and automates FTP and SFTP operations that provide:

- » Authoritative and reliable data transfer status
- » Secure management of ID/password credentials
- » Time-saving operation by using recovery from point of failure
- » Intuitive specifications that simplify job construction

EARLY WARNING PROVIDES MAXIMUM TIME FOR RECOVERY/REPAIR

BMC CONTROL-M defines service levels for batch business services, constantly monitors progress against these service levels and detects potential delays at the earliest possible moment. Action is triggered by any job failure or delay which may cause a service level breach. This predictive analysis provides IT with the greatest amount of time to recover from the problematic event and to ensure that a technical problem doesn't become a business problem.

RESILIENT INFRASTRUCTURE

An enterprise workload automation solution must be available and operating 24x7. BMC CONTROL-M has been built with the goal of providing unlimited scalability and bulletproof availability through:

- » Application database mirroring
- » Full support for clustering
- » Windows cluster-aware certification



Access to this infrastructure is controlled through multi-level security that includes support for Active Directory or LDAP Directory for authentication.

Extensive auditing is provided to monitor usage, collect data for compliance and to support corporate policies and problem analysis activities.

INCREASE SERVICE QUALITY AND BUSINESS AGILITY

Batch processing manages over 50% of all work performed by a company's IT organization. Improvement in the quality of batch services is reflected in the overall performance of the IT organization. BMC CONTROL-M makes it easier to deploy new or enhanced applications in the batch environment, allowing new services to be delivered to the business more quickly.

MANAGE BATCH SERVICES, NOT JUST INDIVIDUAL JOBS

BMC CONTROL-M manages batch services that implement or support business services rather than just individual technical workload objects.

- » Each batch service is assigned a service level. A
- » All jobs that comprise a batch service are automatically discovered and updated in real time.
- » An expected batch service completion time is continually calculated, using periodic statistics, which is constantly compared to the assigned service level.
- » As soon as a potential service delay is recognized, whether caused by job failure or delay, email notification or the automatic creation of a service desk incident is performed at the earliest possible moment.
- » Notification informs the organization of the potential business impact rather than providing only technical information that may be recognized by only a small portion of IT staff.

BMC CONTROL-M elevates workload management from a technical, job oriented process to an activity based on business priority and relevance

QUICKLY DELIVER NEW SERVICES AND PRODUCTS

Modern applications are being developed with a variety of new technologies that must be integrated into the legacy production environment.

BMC CONTROL-M provides seamless support for Service Oriented Architecture with fully bi-directional support for:

- » Web Services
- » Messaging enabled applications supporting either JMS or Websphere-MQ messaging
- » Invoking EJBs in Web Application Servers or local Java applications



Hardware virtualization has become commonplace because of the flexibility and cost reductions it can deliver. BMC CONTROL-M is bringing these benefits to workload automation through its support for workload virtualization by combining:

- » Agentless scheduling that facilitates dynamic deployment of servers that previously did not participate in the workload “domain”
- » Workload definitions with embedded scripts and JCL so that jobs are able to execute on a broad range of servers obviating the need to worry about access to the control language.
- » Dynamic node-groups that enable workload to execute on either physical or virtual servers that are not usually defined to BMC CONTROL-M.

BMC CONTROL-M enables organizations to exploit virtualization tools such as internal or external clouds, to dynamically provision servers to address workload resource constraints that may impact service levels. Once the service level in jeopardy has been met, server resources can be re-deployed as necessary to address other business priorities.

ENSURE CONSISTENT SERVICE AVAILABILITY

BMC CONTROL-M Workload Lifecycle Management support ensures that updates to job definitions and the subsequent movement of jobs from one environment to another (e.g., Test to QA to Prod) is largely automated. The “Find and Update” facility provides automated and comprehensive changes to attributes when moving from test to production for example, thus avoiding error prone manual intervention. Integration with change management solutions is provided with the ability to manipulate job definitions as XML documents.

Service disruption can also occur even with successful changes if there is a lack of information about the change impact. For example, a server may be taken out of service just when that server is required to execute a critical batch job thus causing a service level delay. BMC CONTROL-M/Forecast allows IT to examine planned changes for potential conflict with critical service deadlines. What-if scenarios can be examined to determine how changes in the IT environment such as server outages or changes in the business environment such as an unusually high transaction rate, may impact SLAs in the batch environment.

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 Dec. 31, 2008, BMC revenue was approximately \$1.86 billion.

MIGRATE WITH CONFIDENCE

Over 2,100 organizations have implemented BMC CONTROL M, and the vast majority of them migrated from another scheduling solution. Each organization had its own unique environment and requirements that had to be considered in the conversion and migration process. BMC CONTROL M helps you mitigate both the cost and potential risk of migrating from your current schedulers by:

- » Providing an architecture that allows BMC CONTROL M to coexist with other schedulers, freeing you to use the most convenient migration plan
- » Offering automated conversion tools that have been proven in varied environments; the BMC conversion methodology utilizes these tools to achieve a migration that fits each customer’s project objectives
- » Leveraging the experience gained from more than 20 years of migrating from other scheduling solutions (We have converted millions of jobs at 1,500+ companies from other schedulers to BMC CONTROL M.)
- » Leveraging BMC Certified Service Providers — a team of experienced consultants who design and implement highly effective solutions

