BMC ProactiveNet Performance Management

BMC ProactiveNet Performance Management gets IT out of fire-fighting mode by combining performance, availability, event, and impact management with the industry's leading predictive analytics to proactively detect and automatically resolve IT performances issues and sub-optimal configurations before users and services are negatively impacted. With this single Proactive Operations platform, IT can manage the enterprise today, and transition to virtualization and cloud computing when ready.

The BMC Difference

» Automate the prioritization of events based on predictive service impact analysis

» Deliver early warning of impending problems, while eliminating reliance on reactive thresholds and realizing up to a 90 percent reduction in false events with patented predictive analytics

» Automatically pinpoint predictive root cause across infrastructure, applications, and services; factoring in configuration changes and detailed diagnostics

» Continuously capture deep-dive application diagnostics for inclusion in predictive root cause analysis

» Automatically and uniformly map, monitor, and track relationships and behavior across physical, virtual, and cloud environments

» Automate cross-IT workflows and processes across BMC and third-party solutions

Business Challenge

Because the business counts on IT to deliver high quality of service on key applications, IT is pressured to optimize the end-user experience, improve application performance and availability, and meet service level commitments. As your IT environment transitions to a hybrid data center — adopting virtualization and cloud technologies — current monitoring and event management approaches fail to provide proactive and automated detection, isolation, prioritization, diagnosis, and resolution of end-to-end performance and availability issues related to dynamically changing business services. IT is in constant fire-fighting mode, reacting to issues only after a problem occurs. As a result, operational costs are too high, operators are overwhelmed, users are frustrated, and business services suffer; hindering IT's responsiveness and ability to meet business demands.

That's why you need an integrated performance, availability, event, and impact management solution designed specifically to manage high volumes of business service data and events collected across multiple platforms, vendors, and sources; to include components that are managed, but not owned, by IT.

The BMC Solution

BMC ProactiveNet Performance Management helps IT to shift from reactive to proactive management and optimize application performance by avoiding costly outages, solving issues before service levels are impacted, accelerating mean-time-to-repair (MTTR), and extending mean-time-between-failure (MTBF). It also reduces customer impact and service calls, while improving operational efficiency through predictive analytics and driving preventative automation across a single Proactive Operations platform.

A Single Proactive Operations Platform for Legacy and Cloud

Complexity is rising in the hybrid data center, and you don't need to introduce additional complexity to monitor and manage it. By combining performance, availability, event, and impact management into a single Proactive Operations platform for legacy and cloud environments, you can simplify your existing monitoring and management; with the added benefit of being able to incrementally add functionality necessary to more effectively manage these transformational technologies, with minimal disruption.

BMC ProactiveNet Performance Management consolidates data and events spanning multiple vendors, platforms, and sources. It supports agent-less and agent-based monitoring of infrastructure, applications, real and synthetic end-user transactions, SNMP networks, configuration changes, business metrics, and custom information. In addition, it collects data and events from non-BMC monitoring and event management tools. The solution also monitors on-premise and public cloud resources (e.g., storage, UCS) and services, to include SaaS, IaaS, and PaaS.
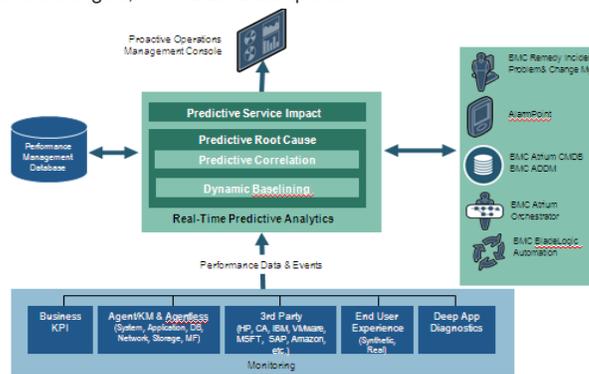
Figure 1. A single Proactive Operations platform for legacy and cloud environments

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Event Management with BMC Service Impact Management v7.3 (now part of BMC ProactiveNet Performance Management)

Generate Fewer Events — And Make Them More Intelligent

Using patented self-learning analytics, BMC ProactiveNet Performance Management automatically discovers and learns the behavioral and performance trends for each of the monitored application and service components; identifying normal and abnormal behavior. Unlike threshold-based monitoring systems, the analytics engine only generates events when there is significantly abnormal behavior. Based on these learned trends, customers eliminate their reliance on reactive thresholds, capture critical events missed by static thresholds, and realize a 90 percent reduction in the number of false events generated by reactive, threshold-based approaches. With fewer, more intelligent events you can more easily pinpoint and prioritize your most critical business issues — regardless of their source.

Speed Problem Isolation, Prioritization, and Resolution

BMC ProactiveNet Performance Management applies real-time predictive root cause analytics to continuously sift through events and abnormalities collected from the application and infrastructure components that support your business services, identifying a prioritized set of the most likely problem causes. The solution applies predictive correlation and filtering techniques that leverage real-time service relationships in the BMC Atrium
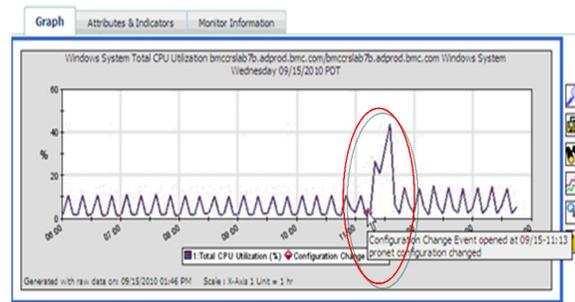

Figure 2. Real-time predictive root cause automatically determines if recent changes cause performance degradations.

CMDB and configuration changes collected from BMC BladeLogic (or any other change source), along with additional detailed diagnostic data. This information provides continuous visibility into problems as they develop; allowing you to diagnose intermittent performance issues on-demand — without requiring you to reproduce a problem. As a result, you can fix problems the first time and slash problem resolution time by 75 percent or more.

The analytics engine provides early visibility into potential problems by learning actual behavior over time for each application component and across components. It immediately identifies abnormal patterns of behavior and reliably delivers real-time predictive alerts indicating when the problem will likely begin to affect users and services. You can use real-time predictive root cause, predictive service impact, and detailed diagnostics to determine the problem area and assign appropriate resources to resolve impending issues before users and services are impacted. Root causes can be isolated, no matter where they reside; even if they are deep in mainframe systems. Using these capabilities, you can reduce the number of service outages and minimize customer impact by preventing problems from occurring — as opposed to the traditional "react to failures" approach — and shift from a focus on MTTR to one that includes MTBF, reducing downtime by 75 percent or more.

Figure 3. Real-time predictive service impact proactively correlates and prioritizes events based on impact.

Manage Dynamic Virtual and Cloud Environments Uniformly

Virtualized and cloud services increase the complexity of performance management by introducing new technology components and complicating the relationships among components that support critical business services. These components and relationships require additional collection and generate higher volumes of raw performance data. The dynamic nature of virtual and cloud environments also drives the need to automatically track and adapt to high volumes and frequency of changes in the infrastructure. The shared nature of these environments amplifies the impact on the business when outages occur, increasing the importance of early and fast problem detection-to-resolution activities.

For virtualized and cloud services, BMC ProactiveNet Performance Management provides monitoring and analysis of virtual and cloud components and their mapping to physical resources and end-user response times. It learns and keeps continuous track of the behavior of physical, virtual, and cloud components and their relationships with one another, and recognizes unique features of these environments, such as clustering and motion. This provides complete visibility, eliminates gaps in root cause, detects potential capacity issues, and eliminates pointless events that can be generated when dynamic changes occur that have no impact on actual

performance or availability. As a result, you can virtualize and cloud-enable more production applications with confidence that your team can support them 24 x 7 using a single Proactive Operations platform.

Continuously Map Degraded End-User and Application Transactions

BMC ProactiveNet Performance Management provides insight into overall end-user experience for distributed, mainframe, and cloud-based applications and services; including transactions originating from Web (ASP, ASP.NET, Java EE™), non-Web (through integration with BMC Middleware Management), and CRM/ERP applications. You can measure the real-time performance of business applications through real end-user transactions, as well as by executing synthetic business transactions. You gain insight into transaction flow across the enterprise by recording and then executing key business transactions from various locations to determine application response times and availability. By collecting and correlating end-user transactions, you can pinpoint the specific step(s) of a transaction flow that is (are) causing degraded performance.
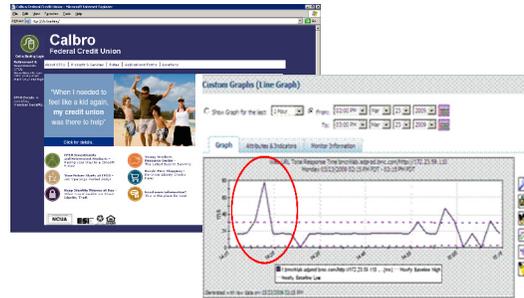

Figure 4. Proactively alert and automatically map degraded end-user and application transactions down to the application and infrastructure tiers.

In addition, the solution continuously monitors application transactions that are associated with end-user requests. When BMC ProactiveNet Performance Management proactively detects a degradation in end-user performance, it can automatically trigger the collection of deep-dive application diagnostics for inclusion in root cause analysis; accelerating application problem resolution by eliminating the need to reproduce application problems. By correlating the degraded end-user and application transactions with all other performance abnormalities, root causes can be isolated to the application tier and infrastructure component within the transaction that is causing the problem.

Proactively Drive IT Operations Based on What's Important to the Business

Shift your management scope from passively monitoring everything in your IT infrastructure to focusing proactively on leading key performance indicators (KPIs), application and end-user response times, and service level objectives (SLOs). Leading indicators tell you what you need to look into versus what has already occurred. BMC ProactiveNet Performance Management natively collects and leverages KPIs to assess the relevance and impact of abnormalities, alerts, events, trends, and predictive models. For example, it provides continuous insight into the end-user experience — down to the application tier — for distributed and mainframe applications, including transactions originating from web, custom, and packaged applications. Understanding the business impact of incoming information allows IT to prioritize and focus on the highest impact issues, decreasing service outages, and guaranteeing a higher quality of service to the business.
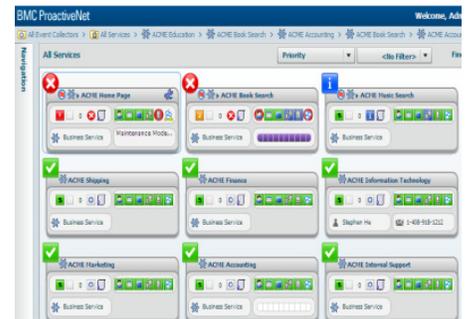

Figure 5. Obtain immediate visibility into the status of your critical business services.

Drive Efficiency Through Automated Processes and Workflows

BMC ProactiveNet Performance Management improves productivity and minimizes risk by automating routine, administrative tasks — such as threshold maintenance, problem detection, root cause isolation, event prioritization and escalation, impact analysis, and resolution processes — directly out of the box. Integration with BMC Atrium Orchestrator enables remediation of configuration problems, recovery from poorly planned or executed virtual machine updates, or even the simple collection and sharing of a standard diagnostics data set. You can tap into a large library of ready-made automations, reducing manual intervention and errors. These automations can trigger BMC BladeLogic solutions to perform configuration changes, such as deploy software updates or detect and roll back recently introduced changes. This eliminates a major source of system outages, speeds the time it takes to repair problems that do occur, and enables you to better allocate your limited resources.

Drive Business Value through a Unified BSM Architecture

Business Service Management (BSM) is a comprehensive approach and unified platform that simultaneously optimizes IT costs, demonstrates transparency, increases business value, controls risk, and assures quality of service. BSM simplifies, standardizes, and automates IT processes, so you can efficiently manage business services throughout their lifecycle — across distributed, mainframe, virtual, and cloud-based resources. As part of the BSM architecture, BMC ProactiveNet Performance Management helps IT:

» Exceed service commitments by managing business service problems top down, eliminating barriers introduced by technology and organizational silos

» Reduce cost and risk by optimizing IT processes to meet business goals and objectives

» Standardize problem resolution, performance, event, and impact management processes based on best practices and industry standards

BMC enables IT Operations to both lead and contribute to corporate BSM initiatives. Through integration with other BMC and third-party tools, BMC ProactiveNet Performance Management helps IT Operations becomes faster, more efficient, and unified.

Integration with the BMC Atrium CMDB

BMC ProactiveNet Performance Management automatically detects business service relationships stored in the BMC Atrium CMDB to perform precise root cause and business impact analysis, utilizing fewer people to triage problems. Leveraging existing configuration items (CIs) and service relationships defined in the BMC Atrium CMDB ensures consistency and eliminates the need to maintain the same information in multiple tools.

Integration with BMC Atrium Orchestrator

BMC Atrium Orchestrator is leveraged by BMC ProactiveNet Performance Management for automating problem triage and repair activities; including proactive incident, configuration and change management.

Integration with BMC Service Level Management

BMC ProactiveNet Performance Management integrates with BMC Service Level Management for ensuring that service level agreements (SLAs) and operations level agreements (OLAs) are maintained based on real-time performance and availability data.

Integration with BMC Dashboards and Analytics for BSM

BMC ProactiveNet Performance Management integrates with BMC Dashboards and Analytics for BSM for consistent and automated status reporting; delivering key service impact, performance, and availability information to speed decisions and accelerate the alignment of IT with business goals. With this integration, IT management can determine, at-a-glance, critical business services, cost, and customer impact of outages, as well as contacts to call for additional information.

Integration with the BMC Remedy IT Service Management Suite

Tightly integrated with the industry-leading BMC Remedy IT Service Management Suite, including BMC Remedy Service Desk, BMC ProactiveNet Performance Management is an integral part of a proactive incident management solution that detects issues that may ultimately affect services. When BMC ProactiveNet Performance Management detects an abnormality that requires attention, it automatically generates an incident ticket with rich diagnostic, impact, and root cause information, proactively alerting the service desk to problems before they cause a disruption in service. Support staff can act on issues before users call, heading off problems before they cause service outages — significantly reducing the number of service desk calls.

For more information

To learn more about how BMC ProactiveNet Performance Management can help you shift to a proactive operations management approach, visit www.bmc.com/ProactiveNetPerf.

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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 September 30, 2010, BMC revenue was approximately $1.96 billion.

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