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SHOWCASE

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Better Together: AIOps With BMC and Google Cloud

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Abstract: A confluence of factors is making the running of applications—aka IT operations management, or ITOM—a process that is almost beyond human capabilities. This increasing complexity demands a new approach to application and infrastructure management. The mainstreaming of cloud computing to multigenerational infrastructure and cloud-native/microservices architectures, combined with the increasing importance of applications to the bottom line and the desire to accelerate IT operations, means that IT needs a new approach to application and infrastructure management. But there is hope: AIOps from BMC and Google Cloud Platform (GCP) promise a solution to the complex challenges of ITOM via the use of AI from Google along with observability and AIOps from BMC. IT leaders should determine whether this powerful combination is the right fit for their organization.

The IT Management Challenge: Complexity Is Outpacing Human Capacity

The modern IT management landscape is pushing the boundaries of human capabilities. The mainstreaming of cloud computing—particularly the adoption of multi-cloud and hybrid environments—means that most organizations have a multigenerational infrastructure composed of complex legacy technology—including mainframes and midrange, virtualized, and hyperconverged infrastructure that run business- and mission-critical workloads. This complexity is further compounded by the rise of cloud-native architectures and microservices, which introduce an ephemeral and dynamic set of interconnected components. In cloud-native applications, these components can be short-lived and dynamically spawned, meaning that any management tool needs to understand the nuances of cloud-native architectures and software management.

These trends, coupled with the increasing dependence of businesses on their applications, have placed immense pressure on IT teams. The impact is significant. Keeping applications running smoothly and optimizing performance is no longer just about uptime; it directly affects the bottom line. According to research from TechTarget's Enterprise Strategy Group, 92% of organizations have a measurable percentage of their organization's revenue directly tied to internally developed or custom applications, with 32% of organizations indicating that they derive the majority of their revenue from these applications.[1] Higher percentages of revenue depend on application availability and performance, so it's no wonder that IT leaders are placing greater importance on maintaining uptime, application performance, and end-user experience.

This change in requirements is forcing IT leaders to reconsider how they manage applications and the underlying infrastructure. Specifically, they're looking to:

- **Automate repetitive tasks.** Leveraging AI and taking advantage of AI-powered automation will free up staff for more innovative work and increase the speed of IT operations.
- **Get predictive insights.** Implementing AIOps and observability to see what is happening inside an application enables businesses to proactively identify the root cause of problems and resolve issues faster.

[1] Source: Enterprise Strategy Group Research Report, *Distributed Cloud Series: Observability and Demystifying AIOps*, August 2023.

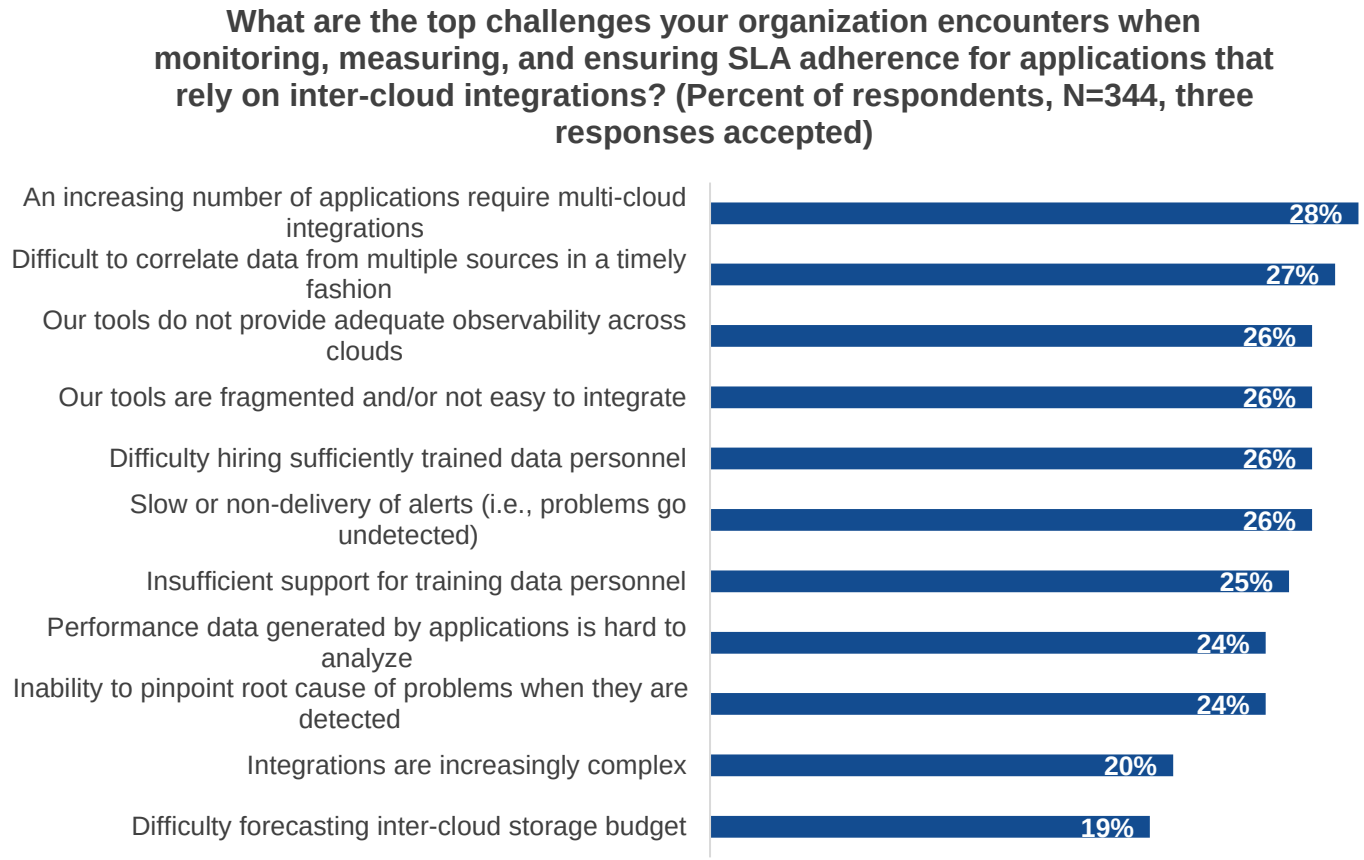
- **Optimize performance and resource use.** Better cloud resource management helps to maintain peak application performance and unlock cost savings.

New approaches, tools, and methodologies will be required to support modern cloud management. Organizations are looking for new, better ways to monitor, measure, and meet service-level agreements (SLAs).

The Situation Today

Even with more modern approaches, organizations report difficulties in meeting SLAs. According to Enterprise Strategy Group research, these difficulties are related to challenges in correlating data from multiple sources in a timely fashion (cited by 27% of organizations), hiring sufficiently trained data personnel (26%), and pinpointing the root cause of problems when they are detected (24%).[2]

Figure 1. Top Challenges of Monitoring and Ensuring SLAs With Inter-cloud Connections



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

As AI and machine learning (ML) become more mainstream in today's business operations, AIOps has been emerging as a critical tool for managing increasingly complex IT environments, automating incident response, and driving proactive problem resolution.

[2] Source: Enterprise Strategy Group Complete Survey Results, *Multi-cloud Application Deployment and Decision Making*, May 2023.

What Does AIOps Do?

AIOps uses AI and ML to improve operational efficiency. Specifically, AIOps:

- **Automates tasks.** AIOps automates routine tasks such as performance monitoring, alerting, and incident remediation. It can execute basic recovery actions based on specific events or conditions. This frees up IT staff to focus on more strategic initiatives.
- **Analyzes data.** AIOps uses ML to analyze data from various IT systems. This data includes infrastructure performance counters, application telemetry, logs, metrics traces, and change events.
- **Proactively identifies problems.** By analyzing data, AIOps can identify potential problems before they occur. This lessens downtime, improves service reliability, and prevents crises before they can impact the normal operations of the business.
- **Isolates root causes.** AIOps correlates events from different IT components to determine the root cause of problems. It can quickly pinpoint the underlying issues, reducing the time it takes to resolve incidents.
- **Provides insights and recommendations.** AIOps can provide IT teams with valuable insights into the health, performance, and failure patterns of their IT infrastructure. This information can be used to improve IT operations and make better decisions about resource allocation.

BMC Helix AIOps

AIOps solutions from BMC apply ML, causal, predictive and generative AI across IT operations and DevOps environments for real-time, enterprise-wide observability, insights, and automated remediation.

The principal benefit of AIOps is that it can help operations, DevOps, and site reliability engineering teams manage complex infrastructure and applications by identifying patterns, predicting potential issues, isolating root causes, and even automating resolutions—all with the goal of streamlining IT processes and ensuring smooth operation.

How BMC and Google Provide AIOps

BMC works with 86% of the Forbes Global 50, collaborating with customers and partners worldwide to create their future. BMC's history of innovation, industry-leading automation, operations, and service management solutions, combined with unmatched flexibility, helps organizations free up time to become autonomous digital enterprises that seize the opportunities ahead. BMC has the experience and the AIOps technology to move organizations forward on their AIOps journey.

Google is one of the top cloud providers and among the most innovative technology firms. The combination of the BMC Helix AIOps and observability platform with GCP has created a solution rated highly by analyst firms that runs and is purchasable in Google Cloud. Trained on Google's Gemini with domain-specific data, BMC's solution integrates technology that has been trusted and respected for generations. The partnership with Google Cloud provides organizations with a scalable and seamless path to AIOps, along with the benefits of improved IT performance, faster resolutions, and higher availability.

BMC's Solutions Are "Game Changers"

"The ability to manage situations and service impact monitoring using AIOps, reduce event noise using AI/ML functionalities, and integrate their many event and log sources are game changers for Ericsson operations.

"BMC's solutions will play a pivotal role in our digital transformation: The use of AI/ML technologies to derive better insights, AIOps, and intelligent automation will deliver greater autonomy and cost savings for our IT operations, as well as better outcomes."

—Vipul Gaur, technical product manager, Ericsson Group IT

Conclusion

The increasing complexity of IT infrastructure and cloud-native application architecture demands a new approach to application and infrastructure management. By leveraging the combined strengths of BMC's industry-leading observability and AIOps with Google Cloud's AI/ML expertise, organizations can achieve faster resolutions, real-time insights for proactive problem identification, and optimized performance and resource use.

Ready to unlock the power of AIOps for your organization? Enterprise Strategy Group recommends that you visit https://www.bmc.com/partners/bmc-and-google-cloud.html to learn more about the BMC Helix Observability and AIOps Platform with Google Cloud.

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