Why AIOps is a Game Changer for ITOps Today

To become an Autonomous Digital Enterprise, manufacturing IT organizations must embrace the powerful benefits that artificial intelligence brings to IT operations. AI, advanced analytics, and machine learning technologies, combined with tangible use cases, can optimize ITOps management—here's how.
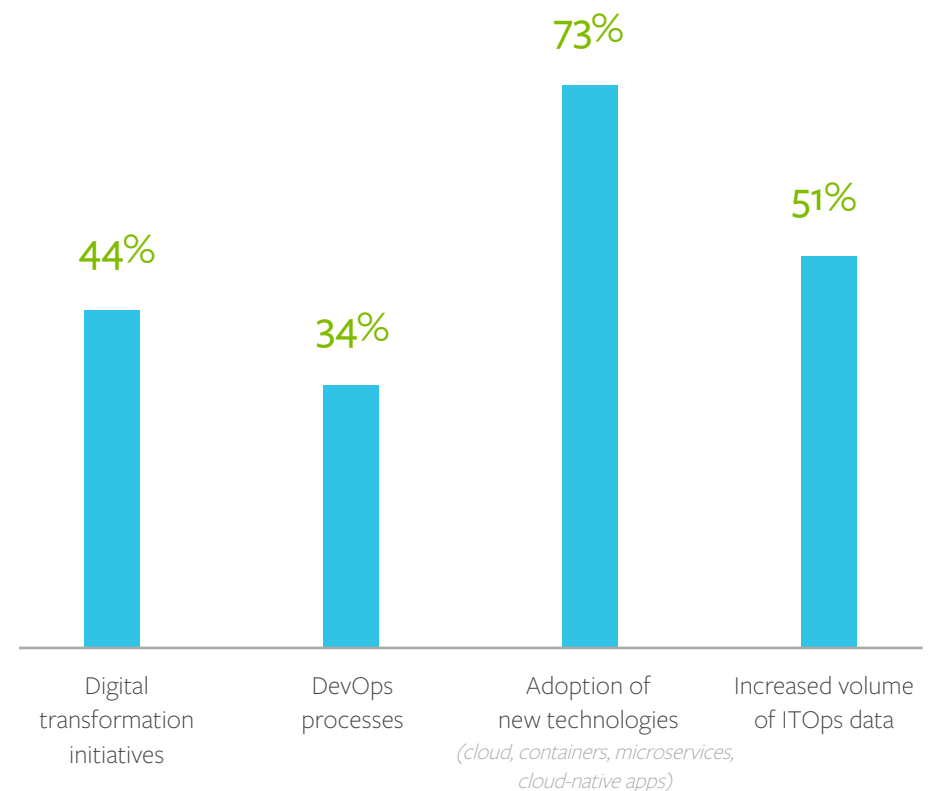
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ITOps Can Embrace the Power of AI Today

Now more than ever, industry is changing as people, technologies, data, devices, and continuously-expanding networks converge to transform every aspect of our work and life. To meet this challenge, BMC is helping customers evolve to embrace agility, customer centricity, and data-driven actionable insights to become an Autonomous Digital Enterprise— and artificial intelligence for IT operations (AIOps) is a key enabling technology on this path.

While many industries continue to anticipate the benefits of AI, IT leaders can put it to work now across ITOps management to automate redundant tasks, analyze metrics, correlate events, improve ITOps performance, and deliver quality IT services with greater velocity. AIOps is a reality that IT should embrace now.

In the midst of today's digital economy, IT leaders are being challenged to balance velocity and agility and deliver more and faster high-quality services with less time and resources, further driving the need to ensure agile IT processes across their organizations.

According to a customer poll taken during a recent BMC webinar, AIOps is one possible solution in the drive to balance ITOps velocity with quality:

44%	34%	73%	51%
Digital transformation initiatives	DevOps processes	Adoption of new technologies *(cloud, containers, microservices, cloud-native apps)*	Increased volume of ITOps data

Source: *IT Operations Trends and AIOps Adoption—Feedback from the Frontline*, BMC, March 2020

Let's Recap: What is AIOps?

AIOps applies AI to ITOps practices and processes, using automation, big data, and machine learning (ML) to aggregate and analyze the huge volumes of data generated from everyday systems across hybrid, on-premise, and cloud environments. AIOps solutions enable IT organizations to quickly collect and intelligently correlate data to remediate incidents and optimize the performance of infrastructure, applications, and services faster than any war room of IT specialists can. AIOps can even deliver on the nirvana of predictive analytics—enabling proactive IT that prevents events and service incidents from ever impacting customers and end users.

Here, we outline the key factors contributing to the growing need to adopt AIOps across enterprise IT.

The Changing Role of ITOps

ITOps is a mainstay in IT organizations. Long seen as the much-needed domain of "keeping the lights on," ITOps is still about ensuring infrastructure, applications, and services are up and running. Yet considering today's sophisticated computing infrastructure—that incorporates multiple components from containers to cloud—guaranteeing optimized performance across diverse and distributed environments is quite a bit more challenging.

Right now, ITOps is about optimizing performance across complex infrastructure, networks, and apps to enable businesses to innovate and deliver high-quality products and services to a customer base that expects zero downtime and more and faster features. With customer experience (CX) now also under IT's domain, AIOps becomes imperative for IT leaders in 2020.

At BMC, we enable IT organizations to deliver a transcendent customer experience, which makes technology feel more human and delivers users what they need—when they need it. The predictive and proactive nature of AIOps helps ITOps get much closer to delivering a customer experience that supports agile app releases, speeds resolution of service issues, and even predicts and avoids potential problems.

How AIOps Elevates ITOps

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Our users are constantly asking for new technologies, and it's essential that we be able to monitor those technologies as soon as they go into production.
—

IT Operations Leader, Société Générale BMC

IT leaders currently manage myriad tools—in some cases, dozens—that monitor events, alerts, and incidents spanning infrastructure, applications, and services across on-premise and multi-cloud environments.

These many, disparate tools spin out alerts, events, and logs related to system activity, creating noise for IT managers to sort through to determine if there is cause for alarm—yet much of the noise is meaningless. To counteract the onslaught of events, an effective AIOps solution can consolidate, analyze, and correlate all of that data and address the noise to prioritize the information that could cause a performance or service interruption. To start, AIOps deploys ML to understand how the environment behaves in busy and slow times. It can then apply that behavioral knowledge to the data and alerts generated by the systems to determine if there is a potential service impact.

With AIOps, IT will only be alerted when the environment's behavior indicates anomalous behavior that suggests app or service degradation or system downtime. This also helps prioritize which issues need

immediate attention, and which can be addressed in a less-timely manner or suppressed to free up ITOps and drive efficiencies.

Financial services company Société Générale wanted to drive more efficiencies and leverage new technologies to reduce costs across the enterprise. The company's Global Technology Services (GTS) group implemented BMC AIOps capabilities to streamline and automate event handling. With the solution, GTS is able to provide a single platform for monitoring performance and availability, as well as managing events. Some of the benefits GTS realized by adopting a single platform include:

Reducing the number of outsourced events by **66%**

Lessening the number of after-hours calls by **20%**

Saving between **€250,000** to **€275,000 per year**

**Automatically** prioritizing and managing events based on business impact

Increasing the percentage of systems monitoring by **66%**

Maturing Out of Silos

IT organizations have long sought the ultimate "single pane of glass" when monitoring multiple complex and hybrid systems—especially as environments continue to become more sophisticated.

AIOps is a step toward the operational maturity needed to abandon the silos and embrace the intelligent automation that can only effectively work across an integrated IT operations management (ITOM) and IT service management (ITSM) environment. Unfortunately, moving away from silos and specialized tools to a holistic, integrated view of the entire environment and a command center culture is not easy.

In another poll taken during the recent BMC webinar, the majority of IT leaders surveyed revealed that they have not yet achieved the holistic, integrated approach provided by AIOps:
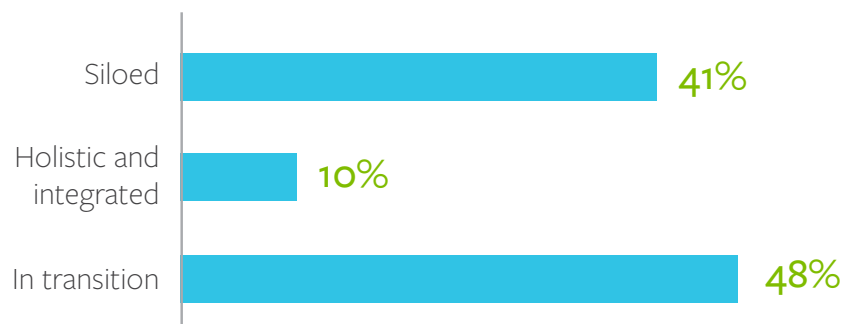
The transition will require IT organizations to embrace a new culture, and measure their performance with new metrics. For instance, mean time to repair (MTTR) may actually increase because low-level tasks and incident response will be automated by AIOps, and the higher-level incidents will require more time to resolve. This should increase the IT team's overall productivity because they will be able to focus on higher-value tasks while the automation afforded by AIOps handles the mundane work.

In another poll taken during the recent BMC webinar, IT leaders recognized the challenges and acknowledged there is work to be done before they can fully realize the benefits of AIOps. When asked about their level of ITOps maturity, the responses were:

Siloed	41%
Holistic and integrated	10%
In transition	48%

Low-level maturity: manual processes, legacy systems, no AI/ML, Dev and Ops separated, silos of monitoring — **50%**

Medium-level maturity: some automated processes, applying AI/ML for limited use cases, supporting DevOps initiatives — **47%**

High-level maturity: single pane of glass, consolidated monitoring, fully-implemented AIOps use cases, automated event resolution — **3%**

Source: *IT Operations Trends and AIOps Adoption—Feedback from the Frontline*, BMC, March 2020

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DevOps and AIOps—Better Together

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By 2023, 40 percent of DevOps teams will augment application and infrastructure monitoring tools with AIOps platform capabilities.

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Market Guide for AIOps Platforms

Gartner, November 2019

The evolution of ITOps reaches across IT domains to also include Enterprise DevOps. AIOps is essential to optimizing the rapid and continuous delivery of software applications and services. As CX becomes a critical driver, so, too, does the need for more efficient, streamlined development processes that are closely integrated with ITOps processes to ensure application performance and availability.

Customer demand also puts pressure on businesses to deliver innovative features faster, and ITOps should be in lockstep with the developers who are working hard to push out more apps, more often without incident. An effective AIOps solution must be able to monitor new applications on a timely basis and ensure that application performance data is presented in a single pane of glass to ITOps teams—along with underlying infrastructure performance data—to enable efficient analysis and triage.

AIOps and Becoming an Autonomous Digital Enterprise

IT organizations are far too familiar with the silos that virtually spring up across a large distributed enterprise environment.

Silos happen when each team—network, server, storage, database, cloud, and more—invests in specialized tools and monitoring technology to manage their part of the larger environment. Silos are the reason why it can be so difficult for IT teams to triage the true source, or root cause, of an incident that caused a performance slowdown or service outage.

As organizations mature into an Autonomous Digital Enterprise where intelligent systems operate with minimal human involvement across the organization, AIOps is a key technology enabler of that goal. AIOps promises to significantly reduce the number of tools, resources, and processes ITOps teams need to resolve problems. Specialized teams, such as the database and network groups, will likely continue to use their niche analysis tools, but with AIOps integrated across platforms, incident triage will require fewer participants

and much less time to resolve the most frequent, low-level issues. IT organizations can create service centers of excellence or command centers that handle events with the help of AIOps, while other IT resources can focus on higher-level, higher-priority tasks

AIOps promises to speed resolution times by automating the process of pinpointing the source of problems. This level of task can be automated in AIOps and then communicated to the ITOps team. With the help of AIOps, the administrators who often work in silos monitoring logs can be put to work on more strategic IT projects.

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> AIOps will help us move from a reactive service model to proactive, and ultimately to predictive, where we'll be able to see signs that there's an impending failure and remediate it before it happens, really saving our customer a lot of downtime.
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> **Director of Product Management, Park Place Technologies**

From ITOps to AIOps

In the journey to becoming an Autonomous Digital Enterprise, ITOps must evolve to AIOps. By enabling automation and applying analytics and ML to big data, AIOps becomes the intelligent platform that integrates several IT disciplines together to both empower IT to do more strategic work and free it from doing too much mundane work.

AIOps encompasses three IT disciplines—service management, performance management, and automation—to more efficiently and effectively conquer the challenges of complex distributed environments and huge volumes of operational data. It is the digital evolution of ITOps to intelligently orchestrate infrastructure, applications, and services across hybrid cloud ecosystems and align with the business to address customer needs on demand.

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Compelled to curtail IT spending, improve enterprise IT agility, and accelerate innovation, 70 percent of CIOs will aggressively apply data and AI to IT operations, tools, and processes by 2021.

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IDC FutureScape Worldwide CIO Agenda 2019 Predictions

AIOps is the Future: the Future is Now

As digital businesses grow more complex, ITOps must also embrace the sophistication that AIOps brings to monitoring, event management, and incident resolution.

AIOps doesn't fully disable the silos that have long troubled IT, but it does reach across the various IT domains to consolidate data, shine a light on what's important, and offer meaningful analysis about how—when evaluated together—these events, alerts, logs, and more impact CX and the business. AIOps reduces the meaningless noise from myriad systems to provide and execute intelligent actions that will address and resolve problems.

An effective AIOps strategy streamlines IT management processes and replaces redundant, tedious tasks with continuous, actionable insights and improvements that help accelerated IT environments keep pace with today's digital business demands. AIOps overcomes monitoring and event management challenges to position ITOps as a true enabler

of a transcendent customer experience for the internal end users and external customers that businesses must impress.

AIOps elevates ITOps to where it must be to best serve today's demanding digital businesses as they continue to grow ever more complex. AIOps is the inevitable future for IT organizations aspiring to become an Autonomous Digital Enterprise, and that future is happening now.

BMC Helix Monitor
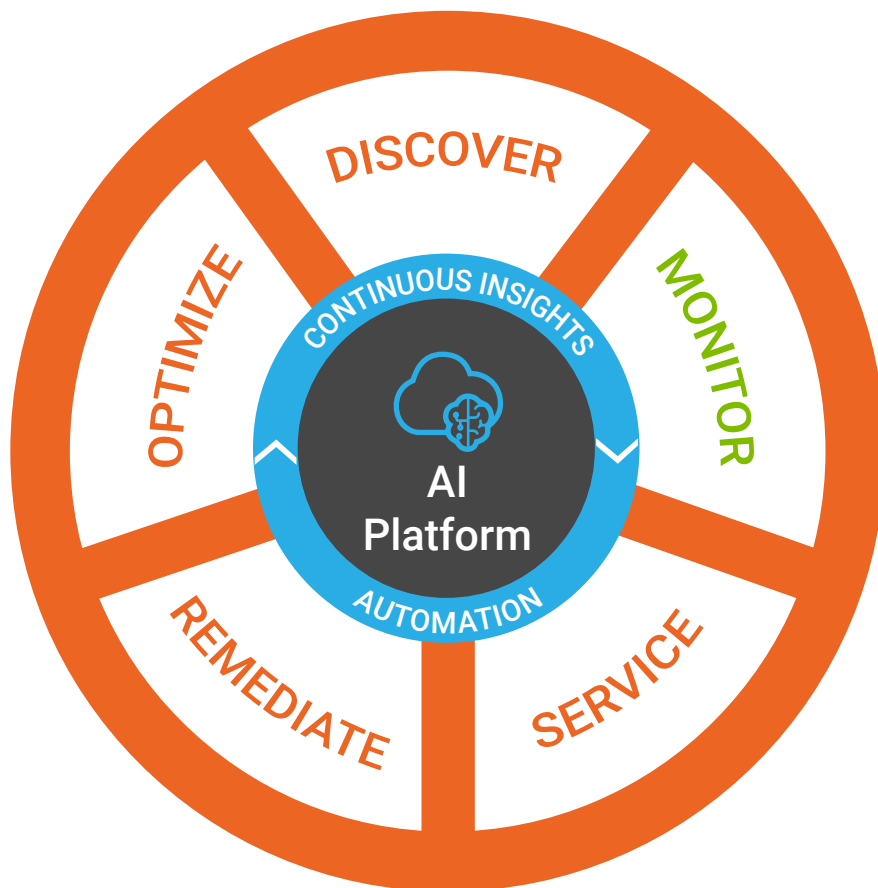
BMC Helix Monitor, part of the BMC Helix service and operations platform that spans discovery, monitoring, service management, optimization, and remediation, is an AIOps platform that combines broad monitoring and event management capabilities with a cloud-native, containerized, and microservices-based architecture. BMC Helix Monitor offers fast deployment, non-disruptive upgrades, elastic scalability, enterprise-grade high-availability, and large-scale AIOps use cases to help IT become an Autonomous Digital Enterprise. Learn more about BMC Helix Monitor at: www.bmc.com/monitor.

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