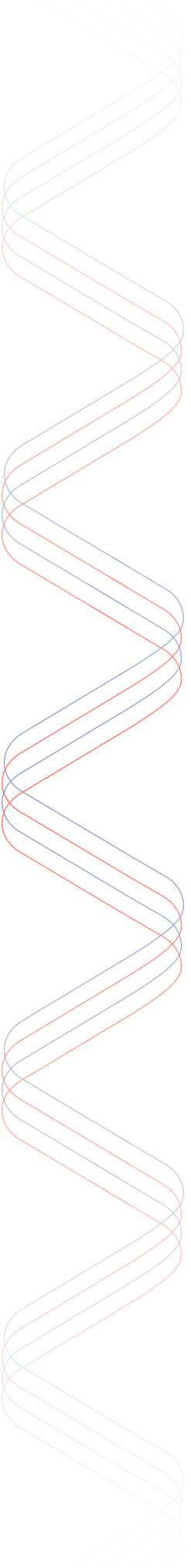


# How Observability & AIOps Enable Reliable IT Performance



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## Challenges and Potential

As observability and AIOps gain greater adoption, enterprise leaders have deployed these technologies to enhance the performance of IT environments in numerous ways:

- **Observability**, with its capacity to monitor the output of a complex IT environment, provides crucial insights into distributed systems' health.
- **AIOps**, by using the power of AI for IT operations, offers a sophisticated array of tools that exponentially expand the reach of time-pressed IT practitioners.

Most significant, observability and AIOps shift the enterprise toward the next generation of productivity: the autonomous IT operation. The expansive feature set within observability and AIOps reduces the operational load on managers and staff, freeing them to focus on higher value activities.

However, enterprise decision makers should realize that their journey toward autonomous operations may pose an array of challenges. First, the observability and AIOps sectors are filled with buzzwords, and selecting a solution must be done carefully. Additionally, these technologies are evolving rapidly, so understanding their growing toolset requires some homework.

Despite these cautions, it's important to start the journey toward more autonomous operations as soon as possible. This is because the benefit from these systems accrues with time: the system learns and improves constantly, providing increasing value from day one.

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## Navigating the Complexity of Cloud Native Environments

The agility and scalability of cloud native applications are typically delivered using microservices, containers and serverless technologies. These modern approaches to software architecture are deployed in tandem with advances like DevOps and continuous integration and delivery practices.

Yet while a cloud native approach offers major advantages, the dynamic nature of today's cloud native environment means it is prone to greater frequency of changes. As a result, enterprise teams often face unexpected performance and availability issues.

All of this means that IT staff now need to deliver reliable services in a highly complex – and constantly changing – environment. Many IT professionals, from DevOps teams to platform engineering specialists, are forced to react in a shorter time frame. They often need to deploy applications dozens of times per day, so issues may go unnoticed, which leaves teams in the dark about potential incidents – incidents that may directly impact their customers.

Due to the challenge of supporting consistent services in a fluid, heterogenous IT landscape, manually analyzing huge amounts of data while managing constant change is no longer possible without system assistance.

This is why observability and AIOps are essential to effectively managing cloud native environments. Observability and AIOps work to eliminate complexity and noise, gather, normalize and reconcile different types of data, understand services and their relations, and use AI to surface and proactively resolve issues.

The net result is extensive use of automation, resulting in IT teams that deliver stable, highly reliable services that move their businesses forward.

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## A Fully Integrated Solution

BMC Helix ITOM – BMC’s Observability and AIOps solution enables the full journey to the autonomous enterprise. Unlike other industry solutions – typically siloed tools – BMC Helix observability and AIOps is a fully integrated solution, enabling AI-powered monitoring, optimization and remediation.

It allows IT teams including DevOps/Ops, SREs and platform engineering, to more closely review business operations. The solution empowers enterprise users to provide better service levels, promote faster innovation, and enable the digital transformation that organizations are now working toward.

Among the advantages that BMC Helix offers:

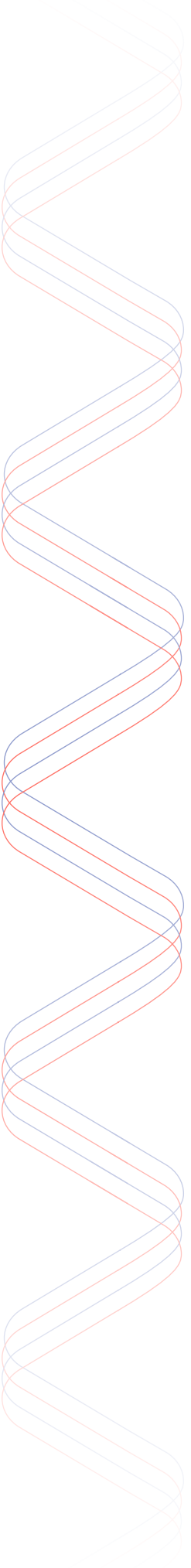
- An open platform can ingest and understand data from a wide array of sources.
- Advanced capabilities such as service blueprints, which reduce the time and effort required to define business contexts and services.
- Predictive features, simulating future scenarios based on business KPIs and optimizing IT investments.
- A full menu of integrated services, including event management, anomaly detection, noise reduction, root cause analysis, and service recommendations.

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## BMC HelixGPT and the Power of Generative AI

One of BMC Helix’s next-gen tools, BMC HelixGPT, uses Generative AI and ML to boost the productivity of IT staff in powerful ways.

For instance, if a staff member quickly types a support ticket, HelixGPT can easily ingest this freely written text, learn from it and then offer assistance like knowledge articles, which are written in easy-to-understand language for staffers to read and understand.



IT teams can use the BMC Helix platform to run system health checks even when no critical alerts are open. In some instances, BMC Helix reveals that a potential issue could escalate into an outage if the trend continues, and as a result, it then preventatively remediates the customer issue.

In one frequent example involving service monitoring, BMC Helix ITOM pointed to a root cause, which indicated a critical status with a customer's infrastructure. A third-party tool has increased logging – resulting in high file system utilization, which can be catastrophic. In response, the team used BMC Helix ITOM's automation capabilities to deploy a solution that ran when an alert fired. Fortunately, this deleted excessive logs before the file system affected the customer.

The advantage is that a company doesn't need to call in a room full of its top subject matter experts every time there's a system issue. With BMC Helix Observability and AIOps solution, the system can explain what's going on, what the root cause is, and what needs to be done to fix it.

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## BMC Helix's Intelligent Automation

BMC Intelligent Automation part of BMC Helix saves hours of IT staff time. Combining BMC Helix Intelligent Automation with predictive, causal and generative AI, IT can remediate issues in the future with much less (if any) effort.

IT teams have used it to resolve long-running database query issues, which helped improve performance as they ran automations to mitigate resource bottlenecks. The BMC's internal DevOps and SRE team, in a single month, added three new intelligent automations that prevented thousands of potential incidents.

The type of remediations enabled by BMC Helix's observability and AIOps tools enables self-healing operation. Indeed, due to the major elimination of manual work and engineering toil, BMC Helix is deeply appreciated by IT and DevOps teams.

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## BMC Helix's Best Action Recommendation

BMC Helix supports BMC HelixGPT-powered Best Answer Recommendation (BAR) capability, which has a long menu of practical implementations. For example:

A code update resulted in increased CPU utilization, which seriously strained host resources. To mediate the issue, an on-call engineer rolled back a code deployment, which helped reduce CPU load. And when a similar situation happens in the future, BAR will surface how the situation was resolved, recommend a potential resolution, and provide steps, for instance in the form of an Ansible script, to resolve the problem.

For teams experiencing longer-than-expected response time of requests, or slow queries, it may be due to higher-than-expected resource utilization. In this case, BAR provided guidance on how to fix the issue. It recommended, for instance, running a script to increase storage space and then restarting a Kubernetes pod.

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## BMC's Own Use of Observability and AIOps

BMC started using observability and AIOps in its own IT environment about a year ago. Since its IT team began deploying these technologies, they've benefited from a dramatic increase in outage prevention, and have been able to more quickly resolve outages if they do happen.

The team's day starts with observability and AIOps. When they arrive at work, instead of sifting through thousands of tickets, they see the summary, which is surfaced by BMC Helix's AI toolset. The team can not only closely monitor the environment, but also view a summary of the issues prevented that day.

Furthermore, observability and AIOps enable them to understand what's happening in their IT environments **proactively**. As a result, DevOps and SRE teams can remediate incidents more precisely and improve and optimize customer environments far more efficiently.



They have achieved, in one set of outcomes:

- 76% of improvement in service health.
- 60% reduced resolution time.
- 74% more prevented outages.

This improvement in IT system management is a “dream come true” as AI and ML resolve incidents and no member of the IT team must wake in the middle of the night to resolve the incident themselves.


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## BMC Helix and the Autonomous Digital Enterprise

The most all-encompassing advantage offered by BMC Helix is that it enables the autonomous digital enterprise, which uses observability and AIOps to streamline operations so teams can focus on higher value goals.

Looking to the future, BMC Helix will continue to support and enhance existing functionalities and developments that will be foundations for the autonomous digital enterprise:

- Observability will continue to add more data sources beyond traditional monitoring, encompassing not just metrics, traces, logs and events but ITSM data such as ticket data, changes topology and incident resolution knowledge articles.
- AI and machine learning will become integral to day-to-day operations for every team and will shift IT operations from reactive to a self-healing, self-directing mode.
- AI will enable the creation of new revenue-generating services, reduce outages, and deliver healthier IT systems.
- The evolution of AI will result in increased happiness and productivity for IT teams by reducing engineering toil.
- IT leaders will be able to achieve more with existing budgets and teams, while onboarding new personnel becomes faster and more efficient.
- The democratization of AI will unlock new services and business opportunities, creating more productive, happier, and efficient IT teams.



# Starting the Observability and AIOps Journey

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For those enterprise decision makers seeking competitive advantage with observability and AIOps, BMC offers a comprehensive solution for this journey. The BMC Helix Observability and AIOps solution is supported by a clear roadmap that provides value on day one, while also enabling the full transformation to the autonomous digital enterprise.

If you want to try the BMC Helix Observability and AIOps solution, you can find more information [here](#). You can also read the [Forrester report](#), positioning BMC Helix as a leader in the AIOps market.