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Seizing The AIOps Opportunity: How Enterprise Leaders Can Unlock New IT Potential With AI

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Introduction

As mission-critical enterprise information technology infrastructure evolves, so too must IT management strategies.

Artificial Intelligence for IT operations—or AIOps—automates, streamlines and enhances IT effectiveness using AI and machine learning (ML). A robust, modern AIOps strategy can improve efficiency through automated incident detection and resolution, anticipate issues through predictive analytics and rapidly integrate data from numerous sources to provide a more accurate and holistic view of an organization's IT environment.

AIOps can improve system uptime, facilitate faster transactions while reducing fraud, bolster service uptime and proactively detect and correct future issues. IT management benefits from reduced mean time to resolve (MTTR) breakage and service tickets along with improved productivity. The organization benefits strategically from a smoother path to incorporate emerging technology and a stronger, more reliable customer experience.

"When you can do something in minutes—versus hours or days—using AI, it's a complete game changer," says Scott Crowder, senior vice-president and chief information officer at BMC Software. "And, I believe we're just scratching the surface right now … [of what's possible] using this technology in IT operations."

Forbes Insights in partnership with BMC set out to gauge AIOps uptake, understanding and enthusiasm among enterprise leaders in a global survey of 1,002 IT executives at the C-Suite (CIO or CTO), IT operations, and service management levels in companies with at least $500 million in annual revenue across a range of industries. Conducted in March and April 2024, it captures the perspectives of leaders achieving significant benefits from AIOps, to those seeking to better map and harness their expanding IT estate, to those just starting their AI journey. Their collective responses offer a cross-industry snapshot of the current state of AIOps understanding, adoption and opportunity.

The Imperative To Simplify IT

As enterprise outcomes grow increasingly dependent on the effectiveness of its information technology, IT complexity is a pain point in focus.

Three-quarters (75%) of respondents said that IT complexity has increased over the past five years.

FIGURE 1.

Top 5 Causes Of Complexity In IT

1. Increasing applications deployed across the enterprise

2. Adopting more distributed approaches such as microservices and containers

3. Emphasizing continuous integration or continuous deployment

4. Implementing advanced analytics (other than AI)

5. Increasing data at the edge or IoT

*Asked of respondents who said that over the past 5 years, the overall complexity of their IT systems has increased

"I've been in the enterprise software business almost 30 years," says Margaret Lee, general manager of digital service and operations management at BMC. "Every technology generation promises simplicity or agility or cost efficiency, but in reality it is very difficult for companies to fully retire any technology, especially in larger enterprises where these technologies are built into the fabric and run mission-critical systems."

"That's why many enterprises today have everything from mainframes to client/server to three-tier architecture with multiple hyperscaler vendors," she adds. "All that complexity is beyond almost any human's ability to grasp and visualize."

When asked for specifics, IT leaders reveal their frustrations with their current technology stack and controls. Only 35% of respondents are extremely satisfied with their IT's real-time incident response capabilities, and the same share are extremely satisfied with their ability to automate IT tasks. And most respondents have seen rising delays to detect and identify (64%) and remediate (63%) IT issues over the past three years.

Most leaders show a strong understanding and acceptance of the potential for AI and ML to help address these challenges. More than 80% of IT leaders trust AI output and see a significant role for AI, including but not limited to generative AI outputs, to positively impact IT complexity and improve business outcomes. And more than two-thirds (67%) of respondents say their current systems are fully ready to meet workload and capacity requirements needed to manage increasing demands for generative and operational AI across their business.
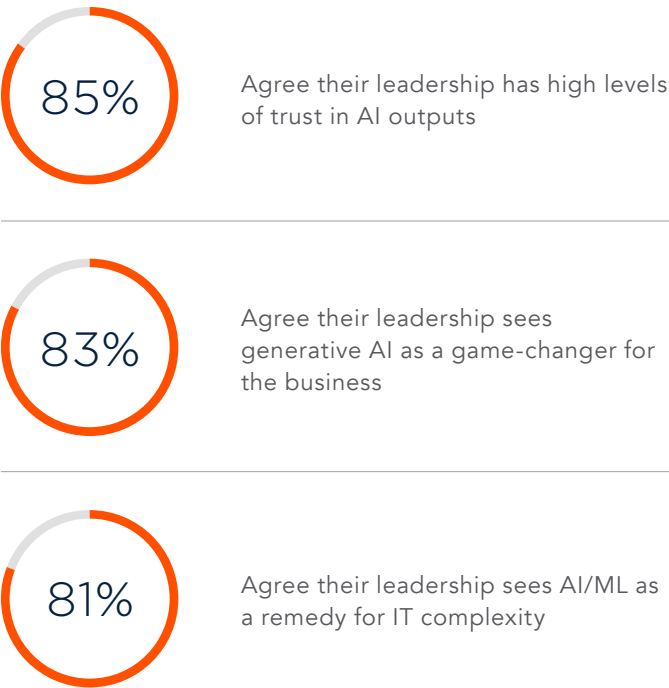
Given this strong endorsement, it's clear technology leaders see AI as a viable answer to pressing business challenges. This applies to challenges born of competition as well as the march of progress, as casual experimentation in the cloud balloons to a multi-hyperscaler stack.

Cloud computing has also been a source of complication: 63% of leaders said the cloud has increased IT complexity

over the past five years, while just 30% believed the cloud has decreased complexity.

"Cloud computing has added so many new storage, compute and container resources to the marketplace, so the increased complexity isn't surprising," says Crowder, "AIOps can help reduce time to remediate issues by ensuring that you understand what each server is doing across the entire business. It's a way to simplify that growing complexity."

Leadership Confidence In AI

85% Agree their leadership has high levels of trust in AI outputs

83% Agree their leadership sees generative AI as a game-changer for the business

81% Agree their leadership sees AI/ML as a remedy for IT complexity

Assessing AIOps Adoption

The vast majority of respondents (94%) indicated their organization employs AIOps in some fashion.

Nearly seven in ten (69%) respondents said AIOps is already extensively supporting their IT infrastructure, led by the telecommunications and automotive sectors with at least 80% extensive adoption. And many organizations already see results including reduced MTTR, greater flexibility, greater scalability and improved reliability.

But challenges remain. In particular, data quality remains a significant issue for two-thirds of respondents.

"Mastering data is a non-negotiable requirement for AIOps success," says Crowder. "Garbage in, garbage out: The quality of your data dictates the quality of the analytics output through AI."

Lee points out that AIOps is also a contributor to improved data quality by reducing productivity-sapping noise.

FIGURE 3.

Top Areas Of AIOps Impact

1. Assuring security

2. Automating IT tasks

3. Intelligent assistants

4. Monitoring and alerting

*Asked of respondents who said they are employing AIOps to support their IT infrastructure extensively or in limited use cases

"When you get 500 alarms clustered together, it's important to understand if they're all related and ultimately caused by just one situation," she explains. "Helping the network operations center (NOC) operator understand the cause is one situational benefit of AIOps, and then a pre-built set of automations to restore services can reduce the time to remediate."

FIGURE 4.

Key Results Of AIOps Initiatives

1. Reduced mean time to restore, resolve and repair (MTTR)

2. Greater flexibility in systems design and deployment

3. Greater scalability

4. Improved service reliability and performance

*Asked of respondents who said they are employing AIOps to support their IT infrastructure extensively or in limited use cases

And fewer than 40% of respondents said both their C-suite and senior IT leadership are extremely aware of AIOps requirements and benefits, with 59% citing this lack of awareness as an obstacle to adoption. Lee suggests that this could be linked to what may be a tradition of gatekeeping in some IT organizations, in which the big picture is truly understood only by a few key stakeholders and communicated on an informal basis.

"Moving past tribal knowledge to a full understanding of all these IT relationships is a key part of AIOps," she says. "It opens the door to the causal insights, the automated remediation and support for averting incidents across the entire change lifecycle that AIOps can provide."

The "change lifecycle" to which Lee refers is the process of managing any kind of organizational IT initiative from the planning stages to final integration—with the aim of minimizing risk. As Lee explains, it starts with a company's development team releasing new capabilities, which have been explicitly approved by its advisory board, or implicitly approved in daily continuous integration and continuous delivery/deployment (CI/CD) rollout. These changes can cause functional or performance incidents for the business' network operations center (NOC), whose team has to quickly restore service and identify the root cause analysis (RCA)—which then turns into learnings for the next set of changes for the said system.

"This is a cycle that happens hundreds and thousands of times in our customers' environment by their teams," Lee says. "These changes have caused heartburn for their IT teams and CIOs, and are becoming more visible to the rest of C-Suite. Many of the outages that make news headlines are caused by problems in the change lifecycle."

Here, explains Crowder, is where AIOps becomes a critical solution. He points to BMC's ability to largely insulate itself from widely-publicized outages this summer caused by a major cybersecurity firm's attempted content update.

"Having our monitoring platforms, our AIOps platforms, really doing a lot of the analytics and identification very quickly rapidly led our control center personnel to act quickly, and get the right business service experts or subject matter experts into that equation or into that incident or crisis call to start remediating rapidly," he says. "So our business really didn't really see much of an impact."

Crowder suggests showing leaders both the potential for AIOps automation to reduce risk in the change lifecycle, as well as to simplify Herculean tasks to mere minutes, and the power of generative AI to crawl through systems and identify ways to improve business processes.

"You can create impact models and technical service guides within minutes instead of months—and that's an absolute game-changer," he says.

FIGURE 5.

Industries Extensively Employing AIOps

Telecommunications — 81%

Automotive — 80%

Technology (Software, Systems) — 76%

Healthcare — 76%
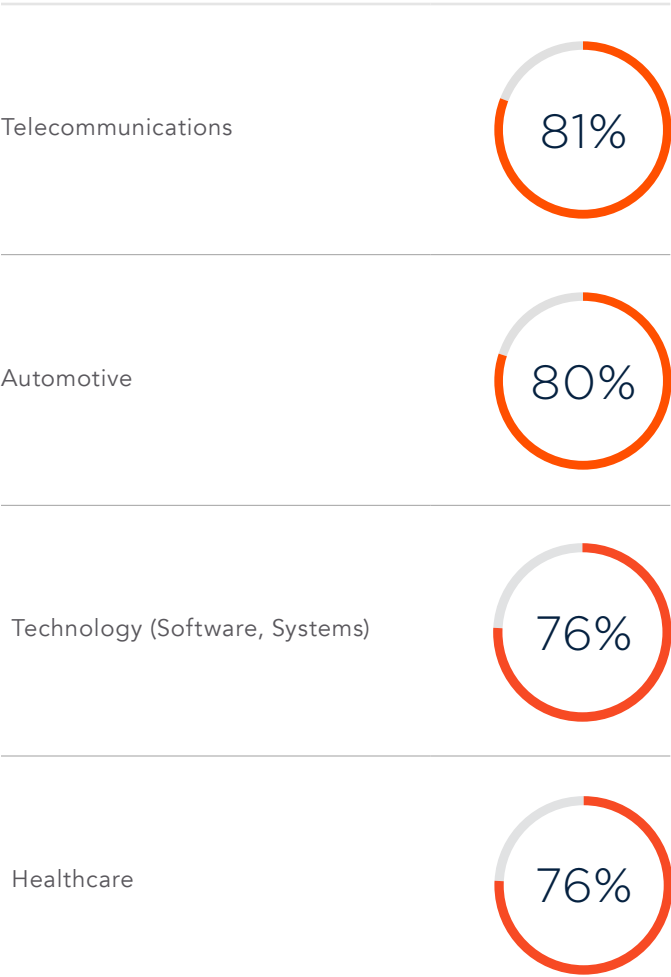
The Journey To AIOps Maturity

Many IT leaders say their staffing and skills are sufficient to design, deploy and manage AIOps.

Beneath the surface, however, are some crucial gaps. A significant share of respondents said they need AI development (45%), security management (44%), data engineering (42%), model training (42%) and data science (41%) skills among the workforce to effectively develop and implement AIOps. These shortages in table-stakes skills reveal that many organizations have room to grow into their AIOps strategy.

"If AIOps were being used in a more mature manner, we would see less need for monitoring skill sets," Lee says. "This may indicate some level of confusion or misunderstanding in the market, thinking that a monitoring system or simple automation means full AIOps maturity."

FIGURE 6.

Top Skills Leaders Say Their Workforce Needs To Effectively Develop And Implement AIOps

1.   AI development

2.   Security management

3.   Model training

4.   Data engineering

Lee says that many organizations today conflate observability, which is just one important component of AIOps, with a full AIOps deployment. Observability builds on the iterative growth of sophisticated IT monitoring tools, starting with the premise that the operational state of every network node should be understandable from its data outputs.

AIOps-powered observability goes beyond this sensor monitoring to provide a complete and up-to-date topology of all of the nodes in the business and how incidents on one layer affect other nodes as well as business outcomes.

"Observability prepares you to quickly understand incidents and their causes," she says. "But AIOps does many things, including providing automatic remediation and insights across the entire change lifecycle, beyond what monitoring or observability alone can do."

Identifying AI development as the top need to advance AIOps strategy, almost all leaders (89%) share or would consider sharing AI talent across project teams inside the organization. As Lee explains, cultivating and retaining AI talent is at least as important as the ability to acquire it on the open market.

"AI and data science skills are extremely valuable today and you cannot hire them all directly from universities," she says. "It takes experience and deliberate cross-functional learning opportunities for people to acquire these skills."

Crowder shares that BMC has seen positive outcomes from its own internal AI council and AI-themed CTO advisory programs. Increasing transparency and streamlining access to insights and AI resources across key business functions positions internal ambassadors and advocates to help others understand the role of AI in the business.

"Creating AI content employees can reference, learning tracks that show how [employees] can develop skills in AI, and highlighting the AI co-pilots that can help people do their jobs are all part of ensuring your employees are educated and staying up to speed," Crowder says. "That helps contain AI sprawl, so that people are working in the same direction and not duplicating efforts."

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>
> **MARGARET LEE**
> GENERAL MANAGER, DIGITAL SERVICE AND OPERATIONS MANAGEMENT, BMC SOFTWARE

Unleashing Growth With AIOps

AIOps is ultimately a business strategy, not an IT toolkit.

Based on their responses, leaders already understand that: 80% say communicating operational improvements as they relate to the business is an effective tactic to secure more executive support for AIOps. Everyone with a vested interest in the organization's growth and evolution can appreciate the value of a significant performance benefit and the transformative change of making the previously complex simple.
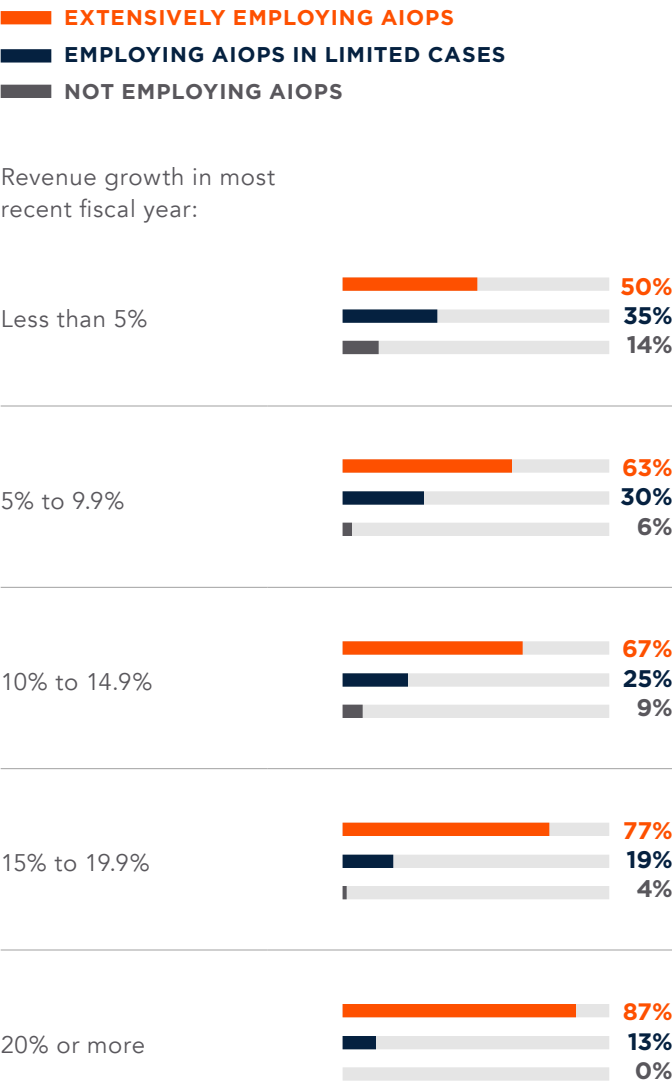
"AIOps has helped BMC with orders-of-magnitude reduction in time to identify incidents," Crowder says. "And AIOps can take what looks like a storm of alerts hitting the monitoring systems and reduce them down to one or two probable causes, which in the past meant trying to find a needle in a haystack."

Crowder also credits AIOps, by providing an enhanced, dynamic and constantly-updated configuration management database (CMDB), for insulating BMC from being impacted by a high-profile global cloud outage. AIOps guided IT control center personnel to the root cause and an effective workaround in a matter of hours, meaning that almost all of its services sidestepped the outage before dawn on the American East Coast.

"When you have the right data, and map that data to business, technical and impact models, you gain the ability to rapidly remediate," he says.

Outside IT, few may need to understand the inner workings of a CMDB, but everyone can appreciate that the process of creating one, which can take even highly-skilled specialists months to accomplish, can now be handled in a matter of minutes.

FIGURE 7.

AIOps Adoption And Organizational Growth

Legend:
- **EXTENSIVELY EMPLOYING AIOPS**
- **EMPLOYING AIOPS IN LIMITED CASES**
- **NOT EMPLOYING AIOPS**

Revenue growth in most recent fiscal year:

Less than 5%
- 50%
- 35%
- 14%

5% to 9.9%
- 63%
- 30%
- 6%

10% to 14.9%
- 67%
- 25%
- 9%

15% to 19.9%
- 77%
- 19%
- 4%

20% or more
- 87%
- 13%
- 0%

Combined with GenAI capabilities to uncover opportunities to further improve business processes through new or optimized technology, AIOps can help de-risk growth by showing the impact of proposed changes in enterprise IT.

"Complexity is challenging when you're trying to make a change and don't know the ripple effects of that change," Lee says. "AIOps can help show the causal impact of the change in one system, and the learning algorithms of AIOps can help you predict risks of incremental vs. major changes."

This command over configuration and resources also speeds business innovation. So, it's little surprise that priorities related to faster speed-to-market, increased innovation and improvements in decision-making were among the most frequently-cited AIOps benefits.

FIGURE 8.

Actions To Secure More Executive AIOps Support

Communicating operational improvements as they relate to the business

80%

Detailing cost savings in IT systems investments and operations

80%

Linking AIOps-enabled processes with innovation and productivity

79%

FIGURE 9.

Top Methods To Measure AIOps Impact

1. Business KPIs (revenues, service quality, customer ratings)

2. Service level agreements (SLAs) and service level indicators (SLIs)

3. Mean time to restore, resolve and repair (MTTR)

FIGURE 10.

Leading Business Benefits Of AIOps

80% Enhanced employee experience

79% Reduced costs

78% Increased product or service innovations

78% Enhanced decision-making

78% Speed to market

Conclusion

What Comes Next: Adopting AIOps To Realize New Value

Leaders are demonstrating a need to improve IT management practices and outcomes, and indicate a strong acceptance of AI's potential to reshape IT. But lagging awareness of the strategic potential of implementing AIOps at all levels of management points to a clear next step.

Enterprises can create new value by adopting an AIOps strategy that is not limited to the narrow scope of IT leadership, but is an organizational priority.

"AIOps is more than just the remit of the CIO," Lee says. "It's something that needs to be understood in the C-Suite and in the boardroom, because these practices and technologies can create a core competitive advantage for the entire company."

As with all AI/ML technologies, AIOps has a disruptive effect on established labor practices and hierarchies. Crowder recommends addressing these concerns head-on.

"Automation doesn't have to be a job killer," he says. "Yes, we want to move more IT work down to tier-zero, full-automation resolution. And the goal is to move people up through the workforce through education, through career development and career pathing, to work on more meaningful and strategic initiatives."

For more information about AIOps, see this BMC guide and associated research.

JASON COMPTON
Report Author

Methodology

Forbes Insights, in partnership with BMC, collected 1,002 responses from IT executives globally across a range of industries in March and April 2024.

Forbes collected 50% of responses in the Americas, 25% in EMEA and 25% in APAC. 50% of respondents represented CIOs and CTOs, 25% represented ITOps leaders and 25% represented service management leaders. All respondents came from organizations with at least $500 million USD in annual revenues.