



ScienceLogic

The Future of AI in IT Operations: Benefits and Challenges

Introduction

Gaining insight into their IT environments is crucial for organizations, allowing them to detect and resolve IT issues to avoid costly downtime, prevent cyber-attacks and preserve their reputations. However, many organizations are still in the process of developing a fully integrated monitoring system, and they often lack a comprehensive overview of their IT landscape. The emergence of Artificial Intelligence (AI) has made it even more critical to address these monitoring challenges, as a consolidated approach is essential for leveraging AI to its fullest potential in the face of increasingly complex IT environments.

AI offers several benefits to organizations, with the potential to achieve greater stability through quicker IT issue identification and enhanced predictability. Generative AI also offers the opportunity to upgrade the user experience. Unlike other AI solutions, which focus on performing a specific task in an efficient manner, Generative AI works in natural language to create something new from existing content or inputs. While upgrading their monitoring capabilities has perhaps been less of a focus for organizations to date, the emerging of AI and Generative AI has made this an urgent priority.

ScienceLogic commissioned research specialist Vanson Bourne to understand more about the challenges organizations are facing, how they are implementing automation, AI, and Generative AI to overcome these challenges, and the barriers they must overcome. Vanson Bourne surveyed 400 professionals with involvement in IT operations across the USA, Germany, UK, and Canada for this study.

Key Findings



Organizations are moving towards complete oversight of their IT environments. Nearly four in 10 (39%) are concentrating on consolidating their IT monitoring, while almost half (45%) are starting to explore how Generative AI can enhance IT issue resolution.



Practically all organizations (99.7%) see benefits from adopting AI for resolving IT issues including improved staff efficiency/productivity (64%), quicker issue identification (61%) and the ability to predict issues before they occur (60%).



Respondents see the extra capabilities of Generative AI as improving the user experience through enhanced self-service (36%) and easier and more effective knowledge searches (35%).



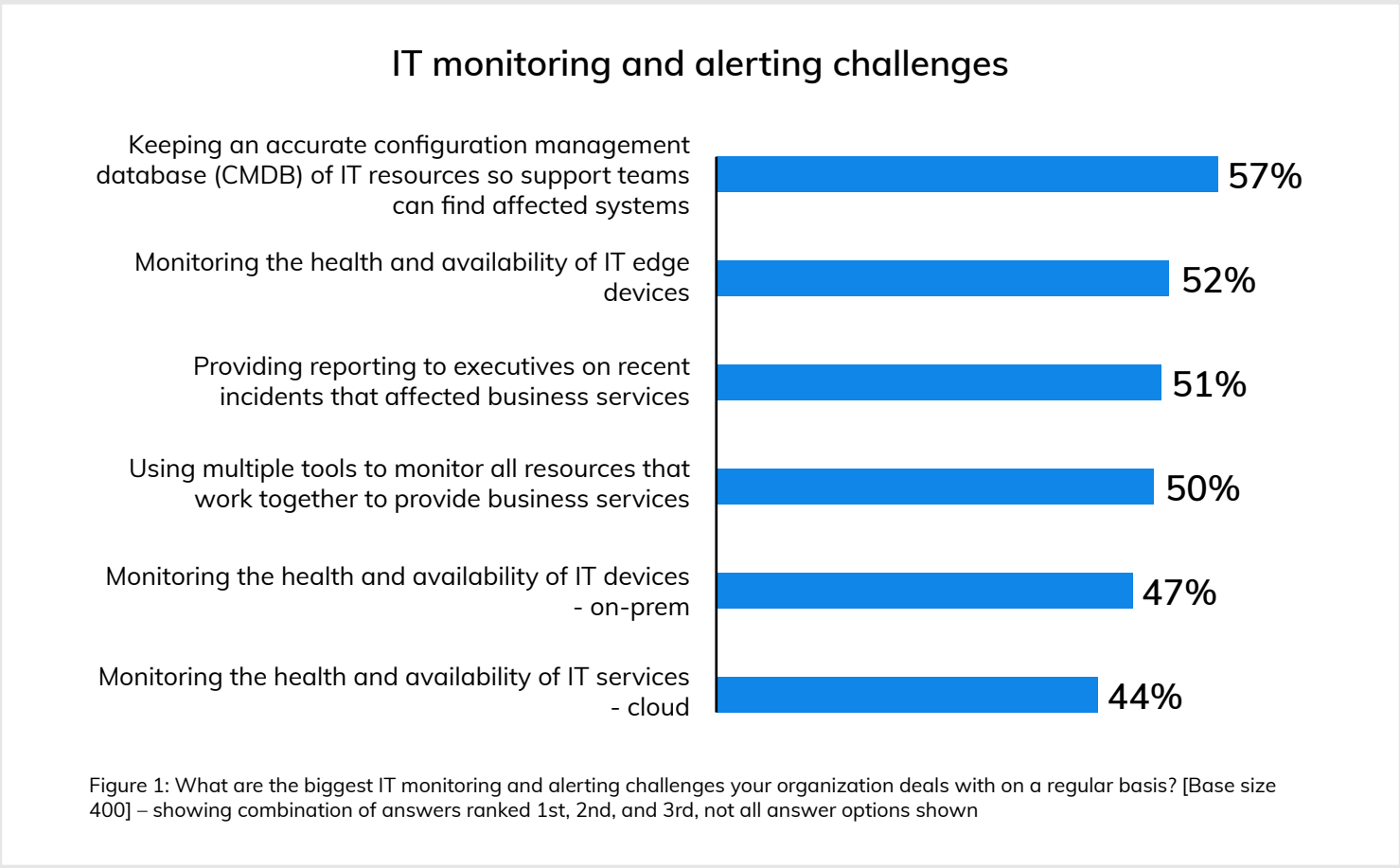
Organizations are being held back in their adoption of AI/Generative AI by a lack of senior buy-in (48%) and skills (48%) and security concerns (50%).

Section 1: Challenges in IT Operations

Section 1.1: Organizations are moving towards a consolidated monitoring environment, with many at the start of their journey

For many organizations, creating a consolidated monitoring environment that can resolve IT issues effectively is both a key strategic focus and an ongoing journey. If organizations struggle to monitor their entire IT environment, they risk exposure to downtime and cybersecurity threats from undetected and unresolved issues in their devices or solutions. This downtime can then lead to significant reputational, financial and regulatory consequences – repercussions organizations need to avoid.

Results show that organizations are recognizing and responding to this challenge with nearly four in 10 (39%) focusing on consolidating their IT monitoring, and almost half (45%) are beginning to explore how to use Generative AI to improve IT issue resolution. However, many are at the start of their journey, with IT monitoring and alerting challenges remaining widespread within organizations.



50%

Half of organizations (50%) need to use multiple tools to monitor resources – leading to data silos and a fragmented user experience. IT staff must cross-check multiple systems to identify issues, increasing the potential for human error and creating inefficiencies. If IT staff are spending excess amounts of time to gain an oversight of their environments and fix human mistakes, then any downtime could be extended, and other organizational goals delayed or deprioritized.

Despite these efforts, many organizations struggle to monitor their entire IT environment, with approaching half (47%) unable to see all their on-prem, cloud and edge devices in a holistic view. Almost all organizations (98%) face barriers integrating their observability software with their ITSM systems, leading to even more data silos and process inefficiencies. These drawbacks in existing systems mean that staff are reacting to IT issues, rather than being able to proactively prevent the issues from occurring in the first place.

“The lack of performance monitoring, analysis, and optimization services led us to spend a lot of time running data checks”

Senior operations decision maker, Financial Services

“The biggest pain point for our organization in IT service management is [...] related to timely resolution of incidents, escalation processes, and ensuring proper communication with stakeholders during service disruptions”

Senior IT decision maker, Financial Services

The rise of Generative AI is exacerbating IT monitoring issues

Unlike other AI solutions, which focus on performing a specific task in an efficient manner, Generative AI can create something new from existing content or inputs. The potential use cases in managing IT are considerable – whether for data synthesis, predictive & proactive insights, what-if scenarios of IT threats or more adaptive security measures that can react in the moment.

However, this will require organizations to have effective monitoring regimes in place. After all, Generative AI cannot provide advice on devices it cannot access, nor can it analyze data the organization simply doesn't have. If data is spread across multiple systems and solutions or poorly formatted, then implementing Generative AI becomes harder as there is no single “pane of glass” to be used as a database for the solution. Consequently, resolving these issues is becoming increasingly urgent to prevent organizations from falling behind in the race to adopt Generative AI and other advanced solutions.



Section 1.2:

The root cause of IT incidents is often unknown, with many analytical tools too complex for IT staff to fully comprehend

Being able to perform detailed root cause analysis is critical for organizations – finding the source of problems faster and more easily and reducing the severity of downtime. Knowing the cause also allows IT staff to enact policies and procedures to ensure that the issue doesn't repeat itself in the future. However, almost half (47%) of organizations struggle to understand their generative AI/ machine learning root cause analysis at least some of the time, and four in ten (41%) state it is simply too complicated, creating a barrier to it being integrated with IT monitoring. With IT environments becoming ever more complicated, this is perhaps unsurprising – the potential causes of an IT issue can be many or even a combination of different factors. That being said, it will be important to cut through the noise and implement a workable solution that will upgrade organizations' maturity in IT operations to deliver effective results.

43% of organizations are thus seeking to use AI solutions to automate their root cause analysis. However, these solutions will only be as useful as their ability to integrate with other processes and help IT personnel effectively. Using Generative AI within these solutions could enhance the user experience further by allowing IT staff to communicate in natural language, ask questions when they don't understand, and receive guidance throughout the process. If Generative AI can help produce outputs that IT staff can easily understand and act upon, it will help prevent organizations from experiencing costly downtime due to recurring IT issues.

“The biggest pain point I see is IT Staff not understanding the [...] tool because it's not very intuitive to use”

Senior IT decision maker, Financial Services

The data shows how widespread it is for organizations to be experiencing difficulties with IT monitoring, observability, and issue resolution. That said, there is now an opportunity and a greater incentive than ever before, for organizations to harness new Generative AI technology to cut through the noise and confusion, and to enable IT teams to do their job proactively and effectively.



Section 2: The benefits of automation and AI

Section 2.1: Organizations are seeking to adopt a more agile approach through utilizing automation and AI

In the face of considerable challenges, organizations are focusing on adopting agile processes to improve responsiveness to unforeseen events. As the world becomes more unpredictable, including evolving geopolitical situations and cybersecurity threats, this focus is unsurprising but critical. Enabling a more agile, holistic approach through AI and automation can improve agility, by increasing productivity, and simultaneously reducing the number/frequency of IT incidents, helping to free up IT staff for other priorities.

Implementing AI can help with these aims, with key benefits including improved staff efficiency/productivity (64%), finding issues faster (61%) and the ability to predict issues before they occur (60%). With this, IT operations become more scalable and real time, able to adapt to fluctuations in demand or organizational growth. Enhanced organizational stability (through quicker issue identification and improved predictability) can also raise the experience for both customers and employees – helping to give organizations a competitive advantage.

Biggest priorities for IT service management over the next 12 months

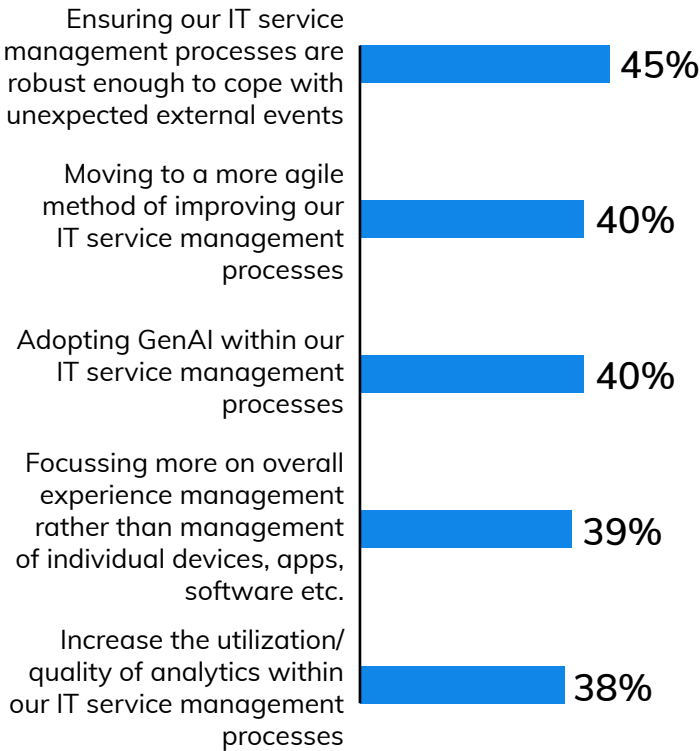


Figure 2: Thinking about the next 12 months, what would be your organization's biggest priorities or focus areas for its IT service management processes? [Base size 400] – showing combination of responses ranked 1st, 2nd and 3rd, not all answer options shown

Benefits hoping to achieve through adopting AI

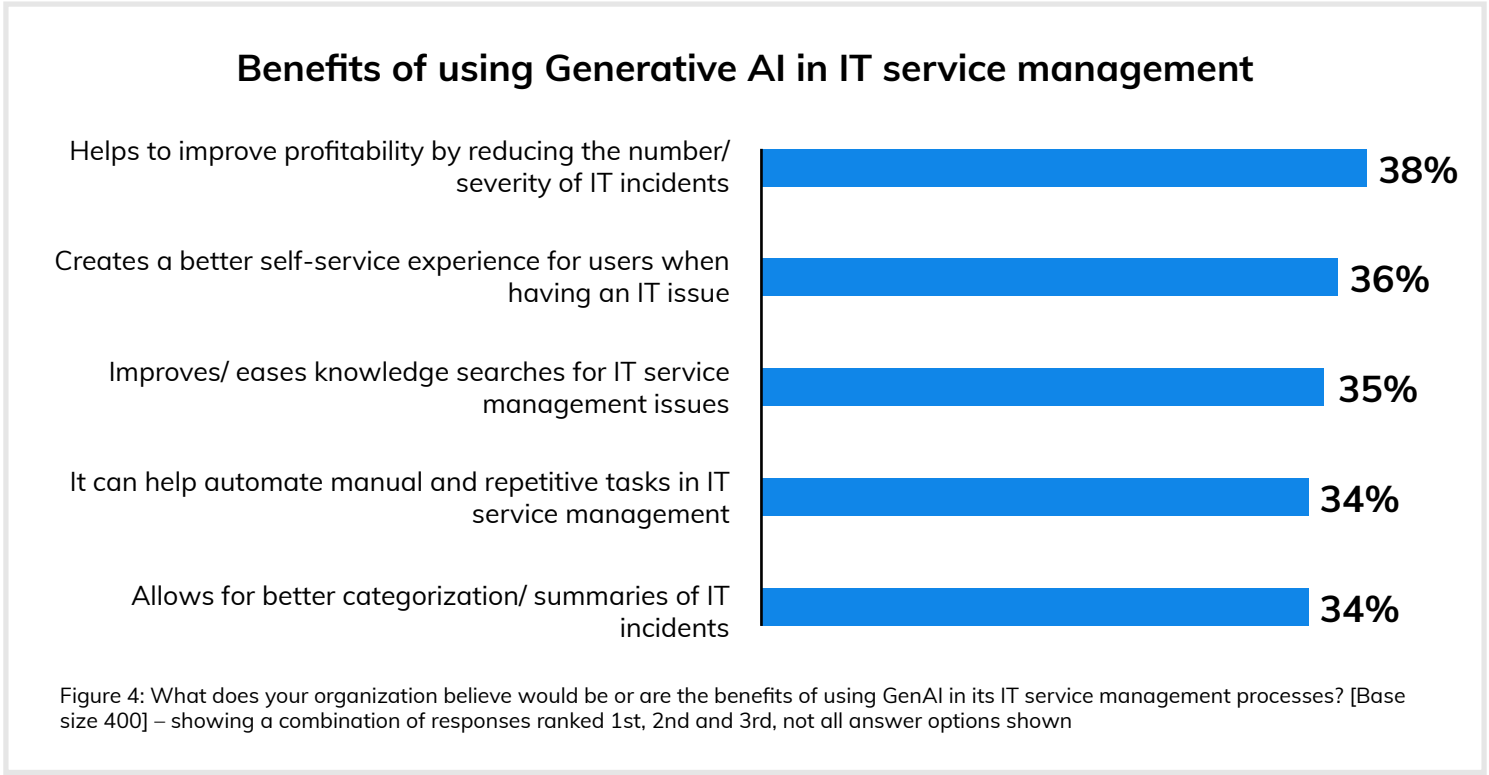


Figure 3: What are the benefits/outcomes your organization hopes to achieve through adopting generative AI/machine learning for the resolution of IT issues? [Base size 400] – showing combination of responses ranked 1st, 2nd and 3rd, not all answer options shown

Section 2.2: Organizations see the extra capabilities of Generative AI as helping to improve the user experience

Respondents see similar benefits when it comes to Generative AI for assisting IT management services processes, but with a greater capability to upgrade the user experience. IT operations professionals note Generative AI's ability to improve profitability by reducing the number and severity of IT incidents (38%), to enhance the self-service experience for users when having an IT issue (36%) and to make knowledge searches easier and more effective for IT service management issues (35%).

Users can more quickly access relevant information, historical data and best practices, enabling them to make better informed, timely decisions. By enabling IT staff to focus on more complex issues while handling basic needs through self-service, Generative AI can also help manage workloads and free up IT staff for other organizational priorities. However, achieving these benefits will only be possible if organizations have an effective monitoring regime – something that is currently an ongoing journey for many organizations (Section 1).

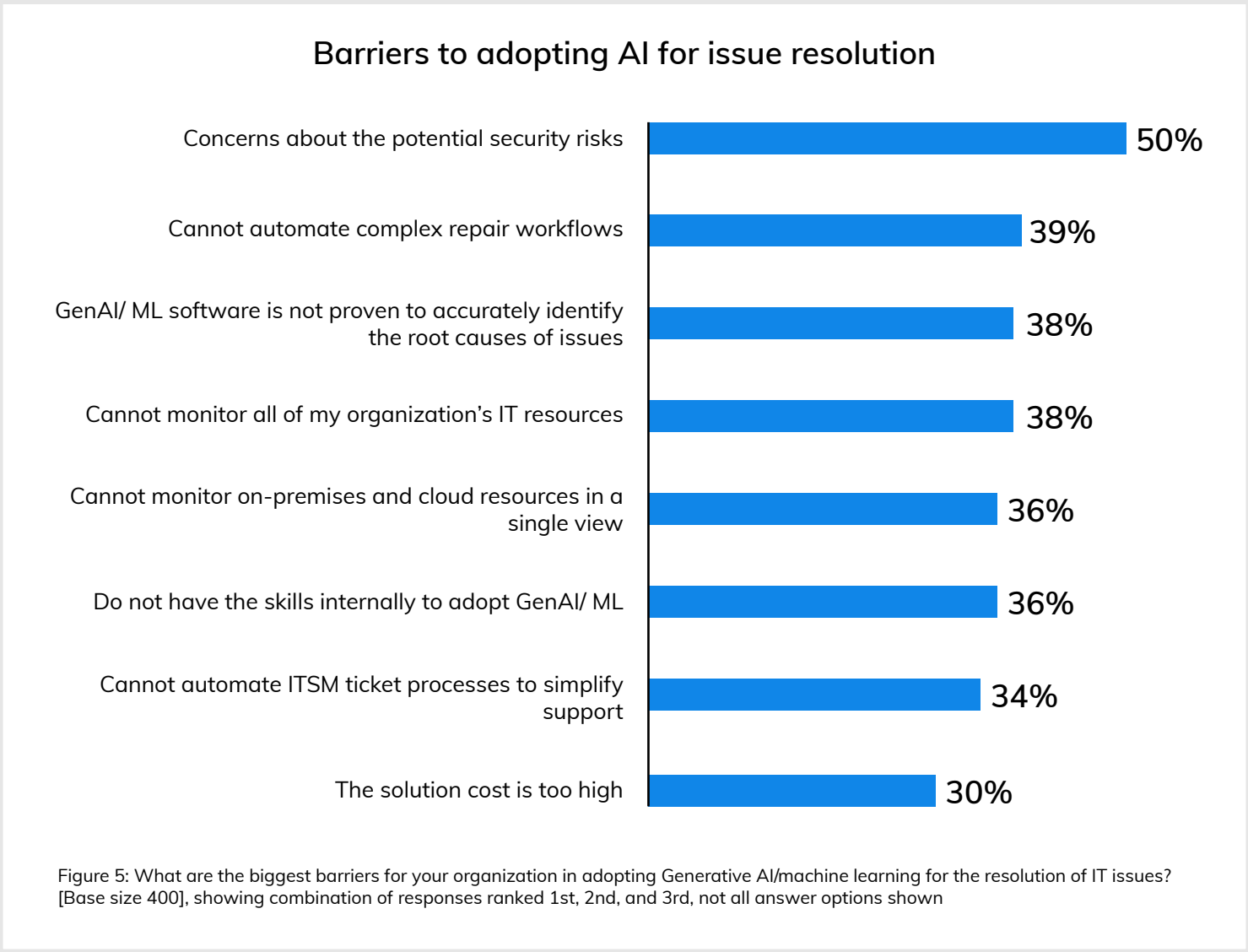


Section 3: The need to invest in creating effective monitoring regimes and staff enablement

Section 3.1: Enabling AI and automation will require effective monitoring solutions

Having a consolidated IT monitoring system is essential for AI, with AI unable to act on devices it cannot see or data it does not have, to identify and resolve IT issues successfully. Many solutions in place today are simply too basic or fragmented to give IT staff the insights they truly need. Barriers to adopting AI for issue resolution include an inability to automate complex repair workflows (39%) and monitor all their IT resources (38%). Security concerns (50%) were also mentioned as a barrier – but not acting on emerging opportunities and technologies may be an even greater risk. Particularly as many organizations are tied up by inefficient processes, with an inability to utilize advanced solutions leaving them at risk of costly downtime and other consequences (Section 1).

Interestingly, cost was the least likely barrier to be mentioned (30%) to adopting AI for IT issue resolution, suggesting organizations recognize the value of investing in this area. Perhaps upgrading their IT monitoring & resolution capabilities has simply been low down on organization’s “to-do list” to date – given the interruptions over the past few years from Covid-19, geopolitical situations and other crises, this is unsurprising. However, with the rapid development of Generative AI, this has now become more urgent (Section 1.1) – if organizations are to reap the benefits Generative AI can bring (Section 2.2).



Section 3.2: Gaining senior buy-in and upskilling staff are key implementation challenges for Generative AI

Gaining buy-in from senior management is the most common barrier to using Generative AI (48%). If organizations are unable to achieve senior buy-in, this could explain why many are yet to begin exploring its capabilities. It is unlikely organizations would start the preparatory work (such as upgrading monitoring systems or standardizing data) required without prioritization from senior management. Perhaps senior management are simply unaware of the problems their IT teams are facing or the benefits Generative AI can bring by transforming the relationship between humans and AI. With Generative AI being so new to many organizations, this is likely to be the case.

As with many innovative technologies, providing effective, comprehensive training to staff will also be key for successful implementation. Results suggest many are struggling to do this, with two-fifths (40%) reporting they find upskilling staff on new technologies challenging. Generative AI may help here – with the ability to ask questions and queries in natural language and seek clarifications, enabling staff to learn as they go and allowing training staff to focus on other priorities.

Challenges of using Generative AI in IT service management

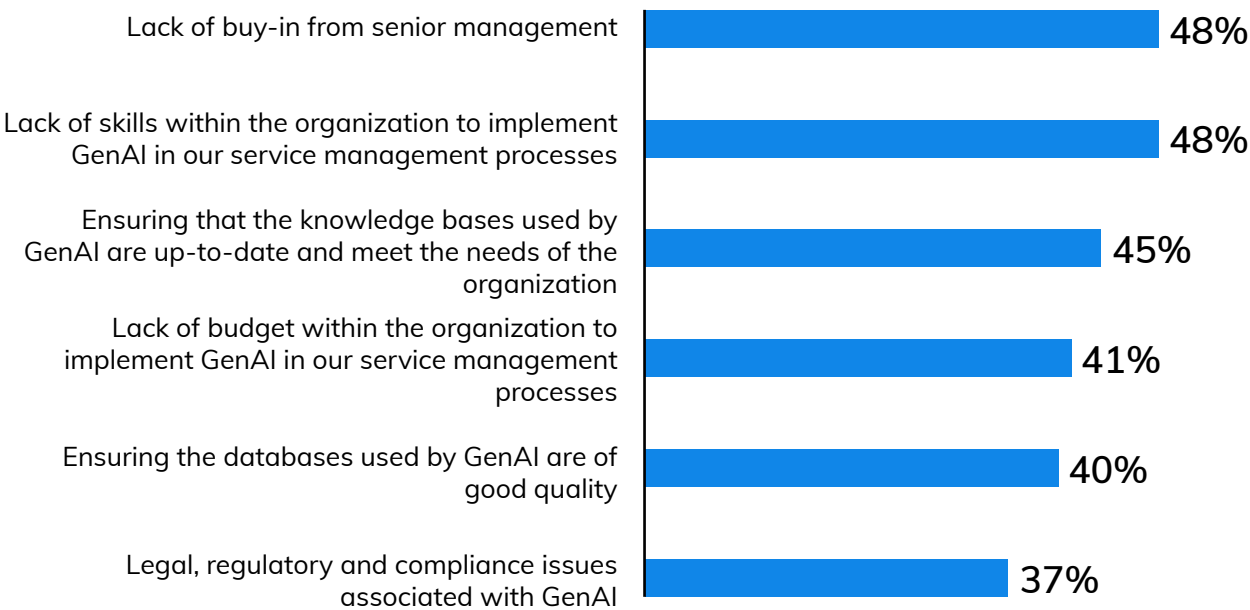


Figure 6: What does your organization see as or believes would be the key challenges of using GenAI in its IT service management processes? [Base size 400], not all answer options shown



Conclusion

Many organizations today face limitations in gaining insights into their IT environments, lacking effective monitoring, alerting, and issue resolution capabilities. This then leaves them exposed to costly downtime and reputational, legal, and financial repercussions. Adopting AI can address these challenges by enhancing organizational stability, boosting productivity, and reducing the frequency and severity of IT incidents. Implementing Generative AI as part of these AI solutions can also provide an enhanced user experience.

However, implementing AI or Generative AI requires organizations to have consolidated monitoring – after all, AI cannot act on devices it cannot see or data it does not have. Investing in upgrading monitoring regimes, capability development and upskilling of staff is critical if organizations are to be able to gain from the substantial benefits of AI and Generative AI. Results from the survey suggest organizations have realised this - with nearly four in 10 (39%) focusing on consolidating their IT monitoring, and almost half (45%) beginning to explore how to use Generative AI to improve IT issue resolution.

Vanson Bourne surveyed 400 professionals with involvement in IT operations in April and May 2024 across the USA (150), Germany (100), the UK (100) and Canada (50). Respondents were senior IT and operations decision makers from the telecoms, IT and technology, insurance, and financial services sectors. Unless specifically stated otherwise, the results discussed in this paper are based on the total sample.

About ScienceLogic

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