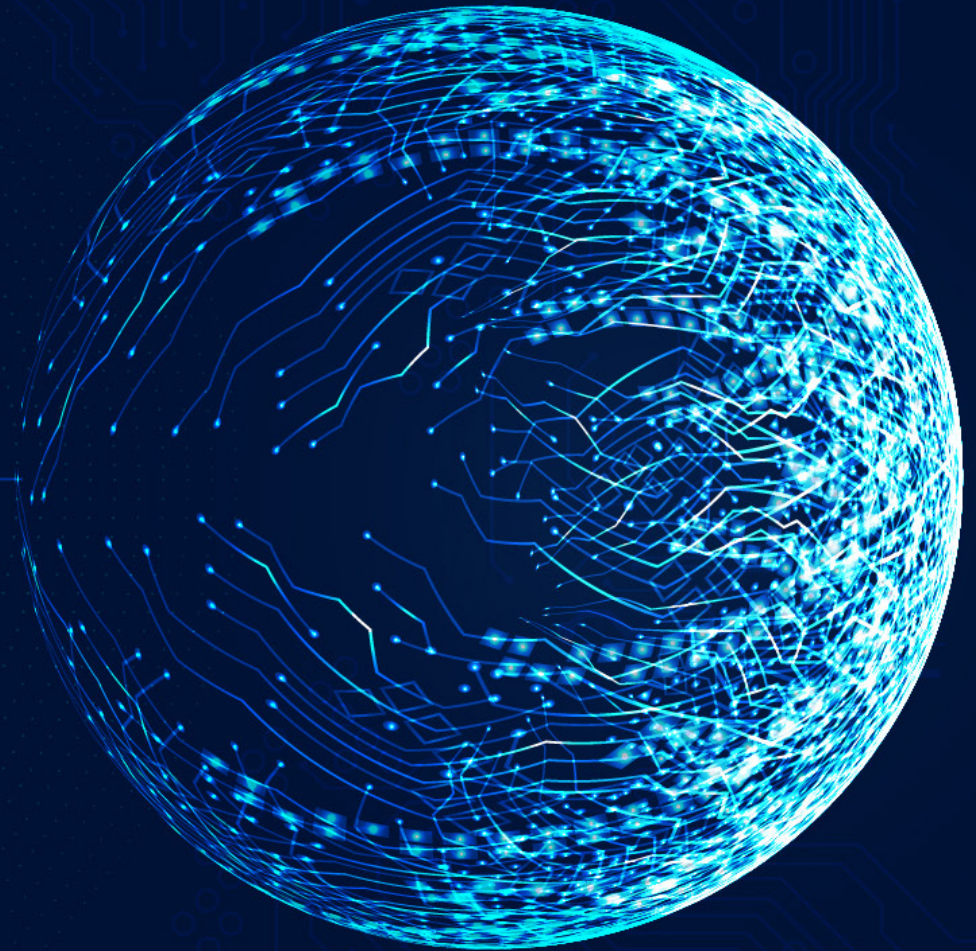


 Report

The OpsRamp State of AIOps Report

The Signal in the Noise: The Truth on
How AIOps is Truly Impacting
Business Performance



Executive Summary

It's Time to Understand How AIOps Is Actually Being Used

While classic event correlation and modern IT operations analytics tools have been around for some time, the AIOps market is fairly new, with Gartner coining the phrase back in 2016. Today, AIOps expectations are reaching peak levels of inflated expectations (see Google Trends to get a glimpse of its growth).

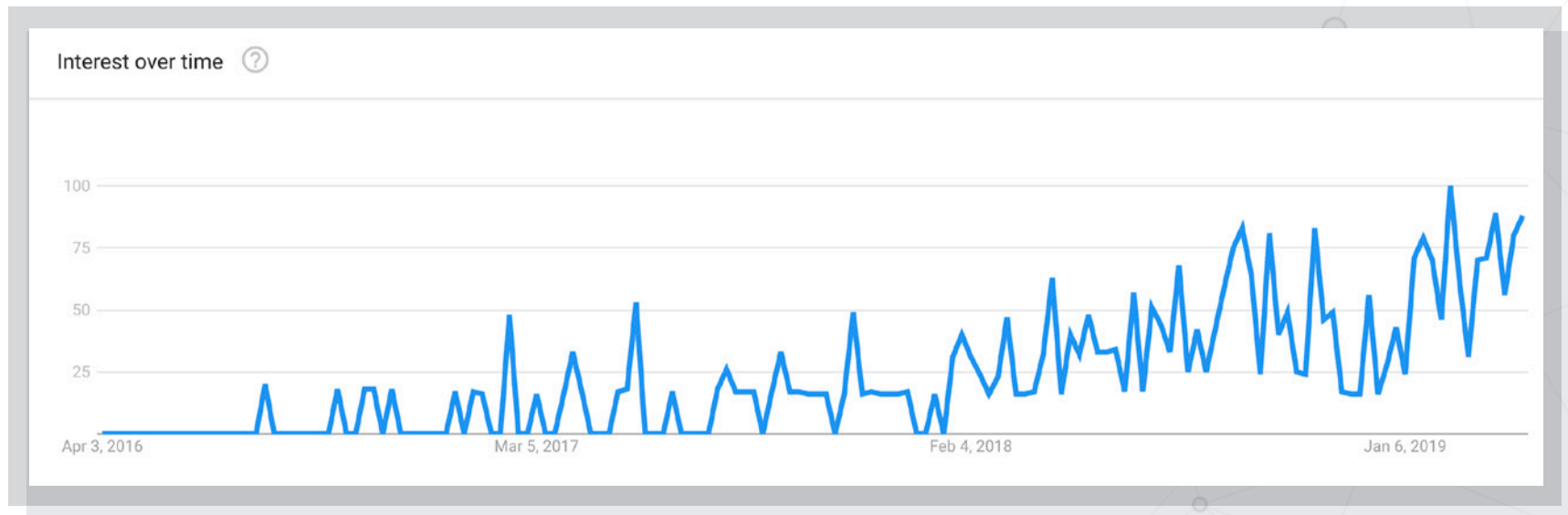


Figure 1 - Google Trends Report for AIOps (April 2016 - April 2019)

To help you understand the true impact of AIOps, OpsRamp has assembled **'The State of AIOps'** report which is probably one of the few surveys that is based on data from IT practitioners who are currently using machine learning-powered event analysis.

The purpose of commissioning The State of AIOps report was three-fold:

- Understand which technology capabilities and use cases were most important for AIOps tool acquisition
- Quantify the operational benefits of AIOps for incident management
- Track leading concerns that might stall AIOps adoption in the future

Read the report to learn, from the trenches, what truly matters while selecting an AIOps solution for a modern enterprise. Discern how to prioritize the right use cases for deployment and how to maintain realistic expectations when faced with any challenges.

And hear from professionals just like you on how AIOps is driving business value. AIOps is here to stay and it's time for IT leaders to lead the movement for change.

Methodology

We conducted the survey through a third party with a total of 200 respondents. All respondents worked at the IT manager level or above, across IT operations, DevOps or Site Reliability Engineering teams.

Enterprises surveyed had more than 500 employees and were all based in the United States. Finally, all the IT decision makers who participated in the survey had already implemented AIOps solutions in their organization.

Prelude: The State of Incident Management Today

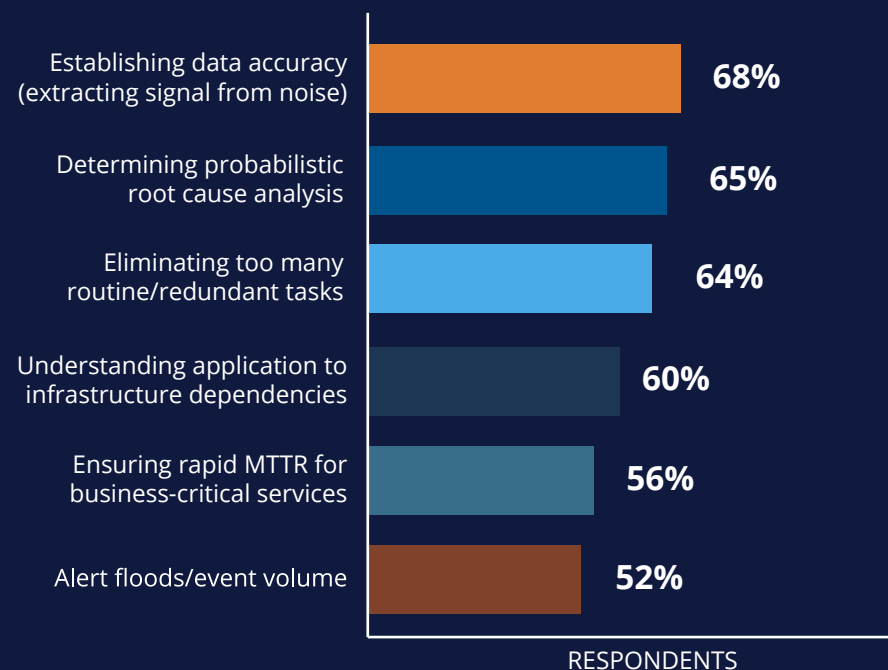
A recent academic paper, [A Comprehensive Survey on Internet Outages](#), states that “Internet outages are inevitable, frequent, opaque, expensive, and poorly understood.” With digital transformation becoming a core organizational priority, IT teams will need to deliver intelligent responses for critical events, prevent customer-facing outages across their digital ecosystem, and take ownership for the performance of digital services.

What Incident Management Challenges Are Front and Center for IT Teams?

The key challenges for end-to-end incident diagnosis, response, and restoration include data accuracy (68%), root cause determination (65%), and elimination of routine tasks (64%).

- **Data Accuracy.** IT teams are struggling to not only suppress alert noise but also extract meaningful insights for faster issue detection and improved response times.
- **Root Cause Analysis.** DevOps teams need the right event context to confidently troubleshoot issues and reduce error rates by unifying operational silos.
- **Autonomous Operations.** Incident response teams are looking to replace manual tasks with automated processes so they can focus more on high-value tasks.

WHAT ARE YOUR TOP INCIDENT MANAGEMENT CHALLENGES?



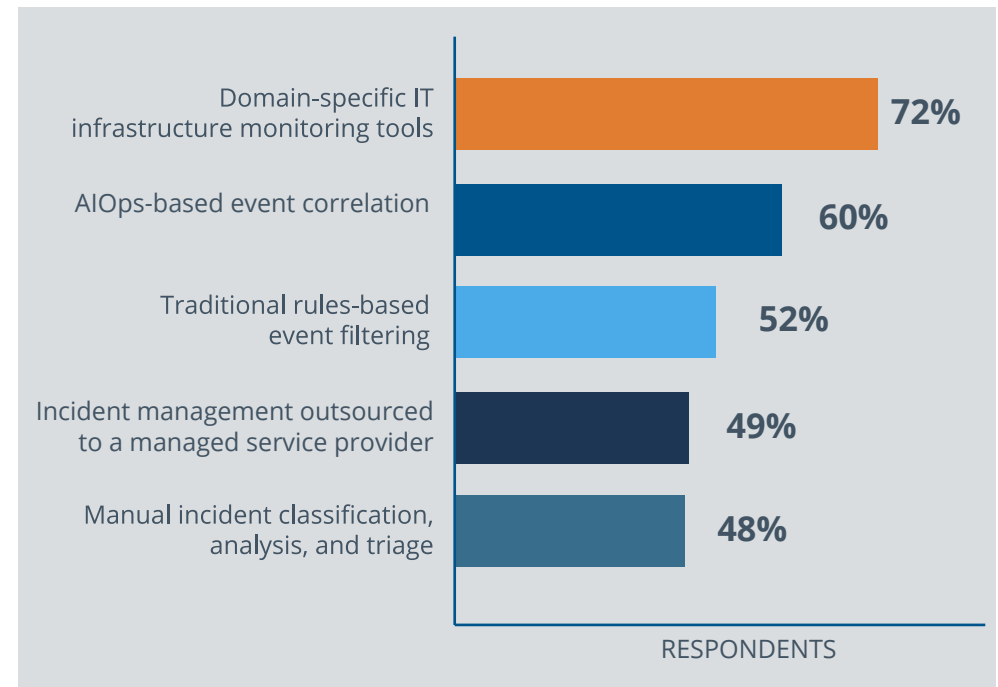
Prelude: The State of Incident Management Today

What Tools Were Previously Used for Identifying and Fixing Critical Issues?

The key solutions for detecting production issues in enterprises today include siloed monitoring tools (72%), rules-based event filtering (52%), and managed service providers (49%).

- **Domain-Specific Monitoring.** Organizations rely on siloed IT infrastructure monitoring tools for managing the health and performance of their digital services. Unfortunately, point monitoring tools don't provide the right contextual visibility and holistic control for rapid incident remediation
- **Rules-Based Correlation.** Service delivery teams have heavily invested in manual rules for filtering, aggregating, and correlating IT service dependencies. Unfortunately, predefined rules don't work well in the world of ephemeral, on-demand cloud services.
- **Outsourced Operations.** It's become more common for enterprises to subcontract their incident management to a third-party provider. Service providers are responsible for managing the uptime and reliability of IT services, in line with agreed service levels.

HOW WOULD YOU PREVIOUSLY DETECT PRODUCTION ISSUES THAT IMPACT USER EXPERIENCE AND SERVICE PERFORMANCE?





AIOps Insight #1

**How to Evaluate and
Decide on the
Right AIOps Solution**

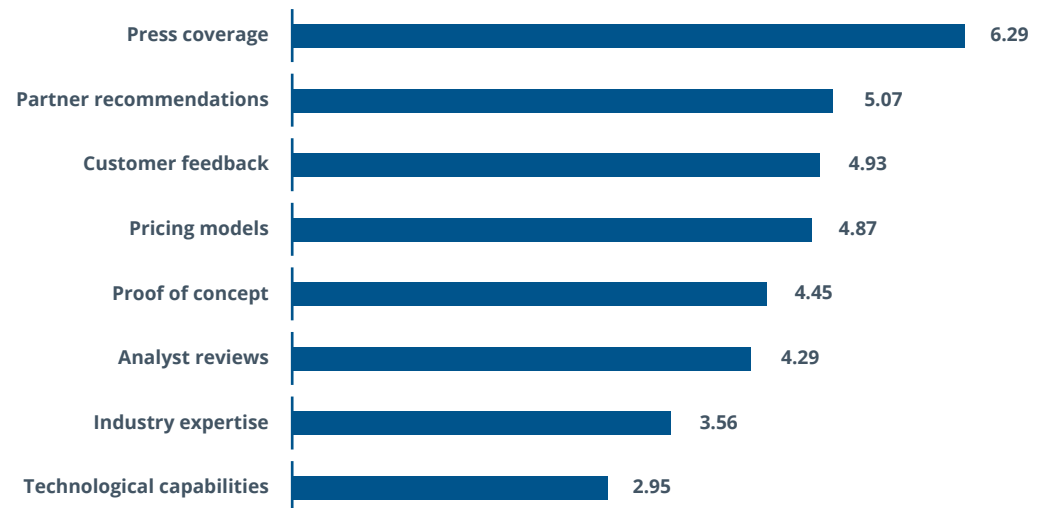
#1 How to Evaluate and Decide on the Right AIOps Solution

IT teams are taking a measured approach to AIOps tool selection and implementation. Technology leaders use press reviews, partner endorsements, and customer case studies for due diligence on tool assessment. DevOps teams rate inference models, incident visualization, and ingestion scale as must-have capabilities for AIOps platforms. Finally, while commercial tools lead the AIOps adoption race, some IT buyers are building their own custom solutions for algorithmic IT event correlation.

What Information Do IT Buyers Seek While Evaluating AIOps Tools? With [30% of IT teams in large enterprises planning to roll out AIOps initiatives by 2023](#), what features and solution use cases become most important in AIOps tool selection?

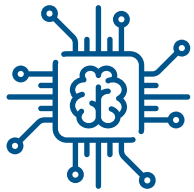
While vendors usually emphasize a long list of technological capabilities and industry expertise as key differentiators, our survey finds that IT leaders primarily rely on *media reports, partner community recommendations, and word of mouth* before rolling out an AIOps solution.

MOST IMPORTANT CRITERIA WHILE CHOOSING AIOPS TOOLS (IMPORTANCE OF FACTORS RATED ON 1-10 SCALE)



#1 How to Evaluate and Decide on the Right AIOps Solution

Which AIOps Features Matter the Most? The top four AIOps features that buyers rank critical for modern incident management are inference models, incident visualization, data-agnostic ingestion, and an integrations ecosystem. Here's why IT leaders believe these AIOps features deliver the right operational visibility for rapid incident resolution:



Inference Models.

Inference models are no surprise given that IT teams are looking at vendors to provide pre-built optimization techniques for alert management. AIOps can deliver immediate value with analysis of vast IT event datasets for historical and real-time incident analysis.



Incident Visualization.

Given the complexity and underlying interdependencies of modern digital services, AIOps tools that can clearly showcase alert insights, relevant performance metrics, and event timeline in a single place are a huge boon for incident responders.



Data-Agnostic Ingestion.

Given the volume, variety, and velocity of data generated by today's IT services, AIOps solutions ensure prompt incident response by consolidating, normalizing, and presenting the right operational insights for informed action.



Integrations Ecosystem.

AIOps tools can manage the entire incident lifecycle by integrating relevant events, metrics, and logs from different IT operations tools. IT teams can access the right performance insights across multiple data sources without resorting to swivel-chair monitoring.

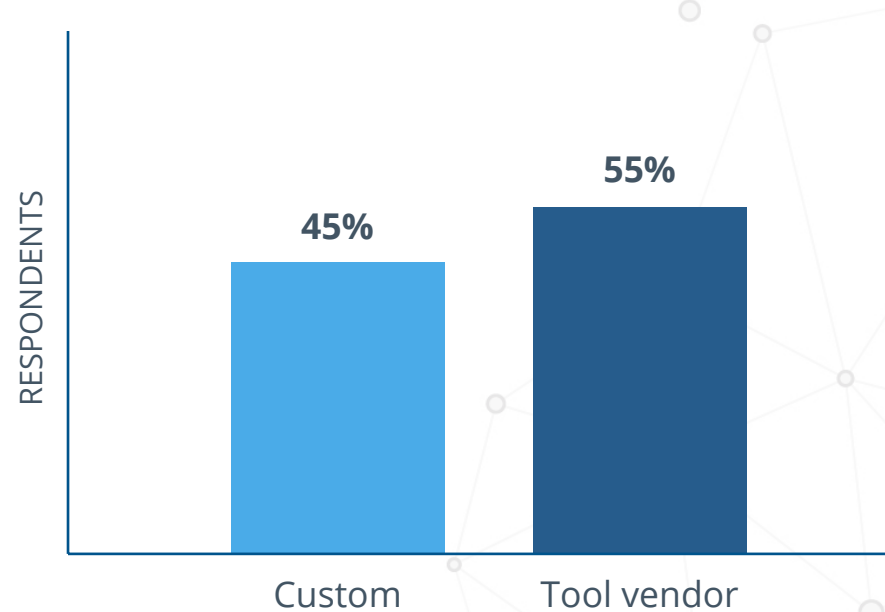
#1 How to Evaluate and Decide on the Right AIOps Solution

Custom vs Off-the-Shelf Solutions.

When it comes to the “build vs buy” decision, 55% of IT decision makers have implemented commercially available solutions from a recognized AIOps tool vendor.

Interestingly, 45% of organizations have built a custom AIOps solution to meet their unique business needs, incorporate organizational specific processes, and deliver tighter integration with existing enterprise IT systems.

DID YOU IMPLEMENT A CUSTOM AIOps SOLUTION OR AN OFF-THE-SHELF VENDOR?



The background features a dark blue color with a pattern of white gear outlines scattered across the top half. The bottom half of the image is filled with a dense, wavy pattern of small white dots, creating a digital or data-like texture.

AIOps Insight #2

**Key Use Cases and Benefits of
AIOps Tools**

#2 Key Use Cases and Benefits of AIOps Tools

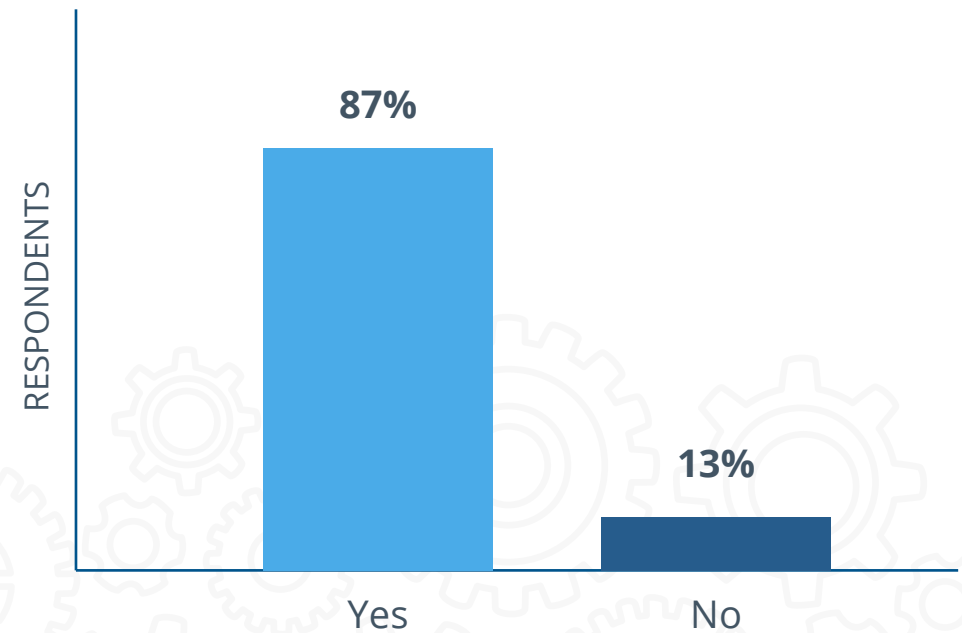
IT teams are unanimous that AIOps solutions are driving productivity gains by handling mundane and tedious tasks, reducing friction for real-time and cross-domain incident collaboration, and ensuring speed and consistency of digital service delivery.

IT Operations Teams See Value in AIOps

Deployments. Machine-learning powered IT event management is helping enterprises address alert notification overload, accelerate incident resolution, and improve team productivity.

87% of technology pros agree that AIOps tools are delivering value through improved hybrid infrastructure resilience, data-driven collaboration, and proactive IT operations.

IS YOUR AIOPS TOOL CURRENTLY DELIVERING THE VALUE YOU HAD EXPECTED?

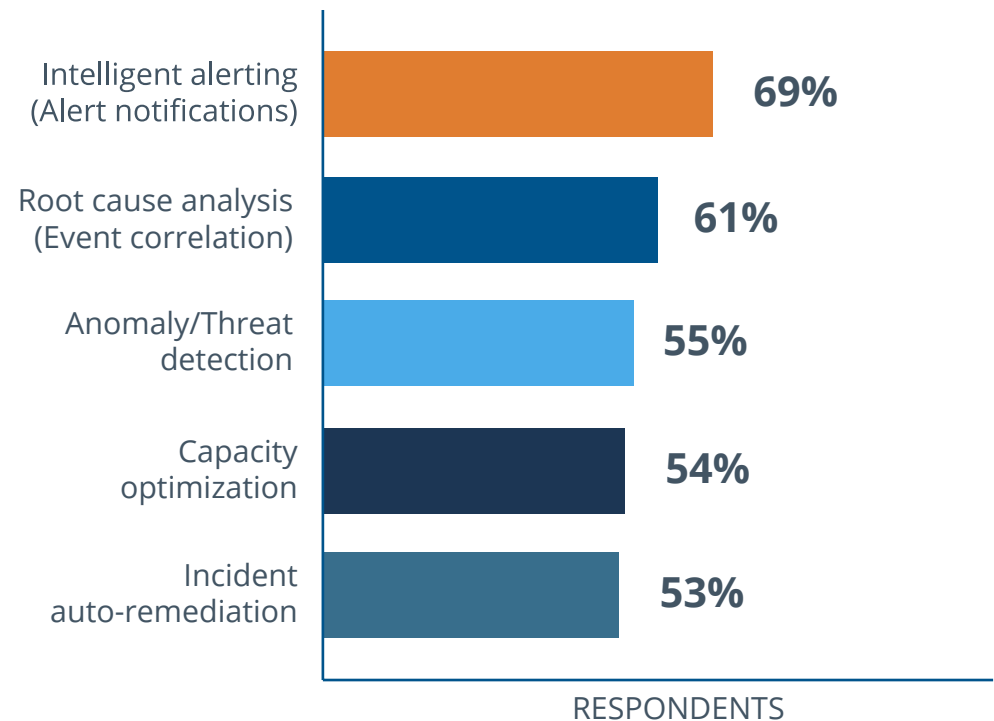


#2 Key Use Cases and Benefits of AIOps Tools

Leading Use Cases for AIOps Solutions. The top use cases for AIOps tools include intelligent alerting (69%), root cause analysis (61%), and anomaly detection (55%).

- **Intelligent Alerting.** AIOps tools deliver contextual alert notifications that let DevOps teams understand event history, streamline incident collaboration, and meet service-level requirements for problem resolution.
- **Root Cause Analysis.** AIOps ensures better service uptime and reliability with rapid problem diagnosis that combines impact visibility and service context to determine probable cause and effect for operational issues.
- **Anomaly/Threat Detection.** Machine-learning algorithms can quickly identify outliers through pattern recognition, so that IT teams can extract signal from noise and identify events that deviate from regular system behavior.

HOW IS YOUR TEAM CURRENTLY USING AIOPS TOOLS?

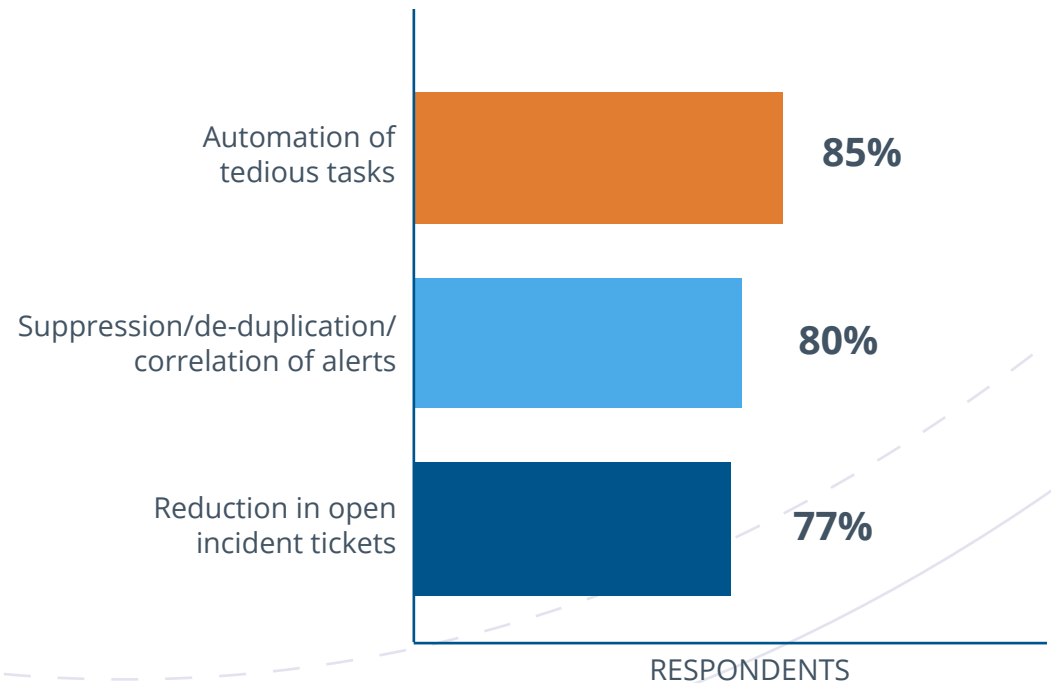


#2 Key Use Cases and Benefits of AIOps Tools

Operational Benefits of AIOps. Enterprises are still figuring out how to extract the best return on investment from their AIOps tools investments.

The survey finds the three biggest advantages of using AIOps tools are the productivity gains from the elimination of low-value, repetitive tasks across the incident lifecycle (85%), rapid issue remediation with faster root cause analysis (80%), and better infrastructure performance through reduction in incident and ticket volumes (77%).

WHAT ARE THE PRIMARY OPERATIONAL BENEFITS OF USING AIOps TOOLS?



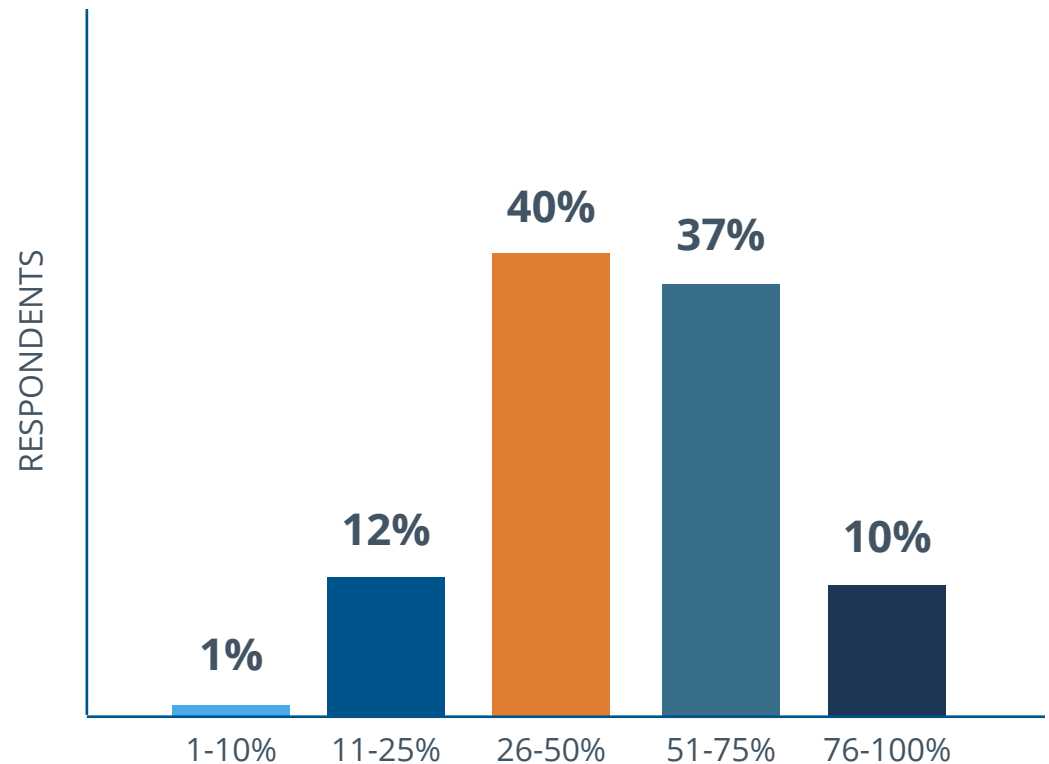
#2 Key Use Cases and Benefits of AIOps Tools

From Problem Detection to Service Restoration.

Our survey confirms that AIOps tools are able to significantly reduce the human time spent on first response, alert prioritization, and root cause(s) analysis.

With modern machine learning technologies, 40% of organizations fixed incidents 26%-50% faster, 37% reduced mean time to resolve by 51% to 75% while 10% brought down overall incident resolution times by more than 76%.

HOW MUCH FASTER DOES IT TAKE TO RESOLVE INCIDENTS USING AIOPS TOOLS?





AIOps Insight #3

**What's Holding Back
AIOps Adoption in the
Enterprise**

#3 What's Holding Back AIOps Adoption in the Enterprise

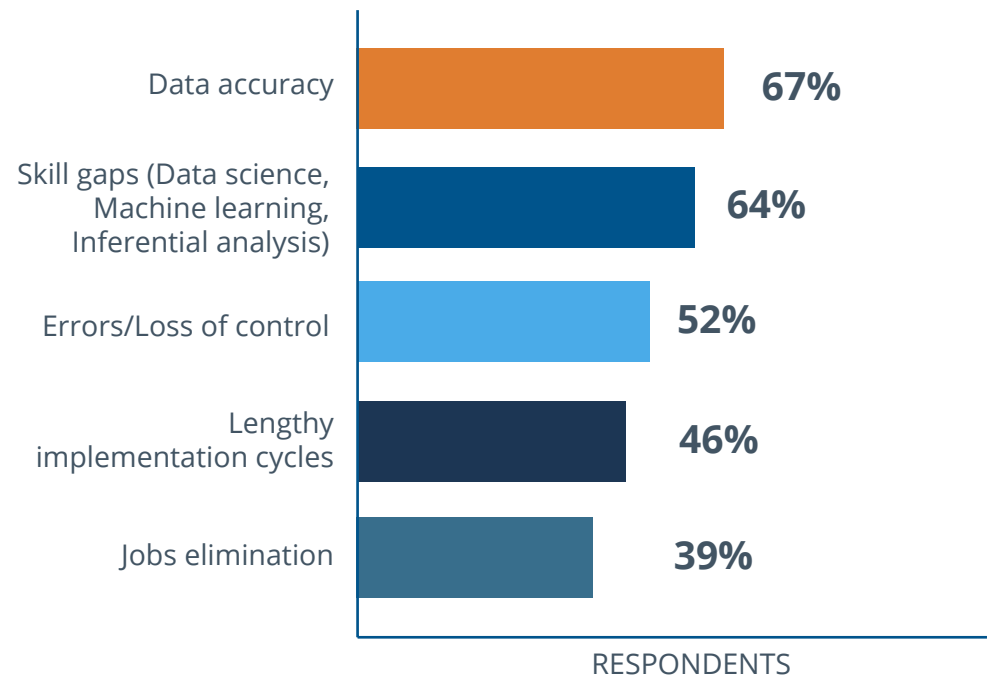
While there is a strong appetite for analytics-driven tools for hybrid infrastructure management, IT pros have legitimate worries about the validity, implementation times, and skills required for successfully implementing AIOps in a dynamic IT environment.

Leading Concerns for AIOps Deployments.

IT leaders cite data accuracy (67%), skills gaps (64%), and loss of control (52%) as major apprehensions while implementing AIOps tools.

- **Data Accuracy.** Enterprises will need more time to build trust in the relevance and reliability of AIOps recommendations. IT teams will combine data-driven insights with human judgment to draw the right conclusions for performance optimization.
- **Skills Gaps.** IT teams will need to gain expertise in machine learning techniques and combine them with incident analysis skills to support AIOps deployments.
- **Errors/Loss of Control.** Incident management teams are afraid to cede complete control to self-driving autonomous systems that deliver actionable insights for problem diagnosis, troubleshooting, and recovery.

WHAT CONCERNS DO YOU HAVE ABOUT THE USE OF AIOPS TOOLS?

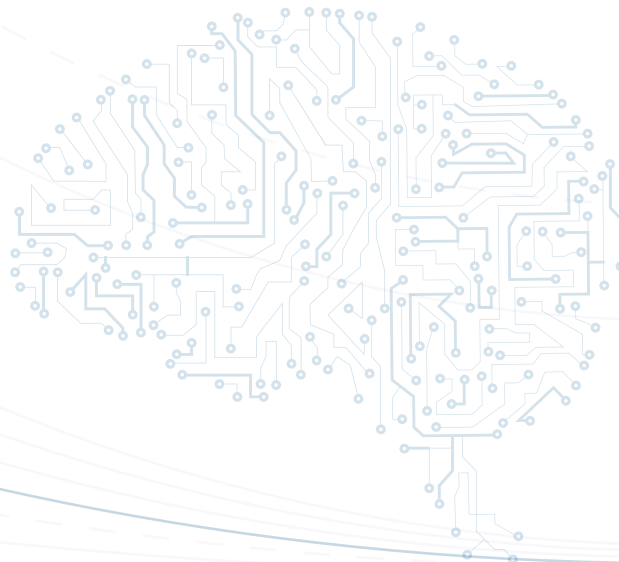
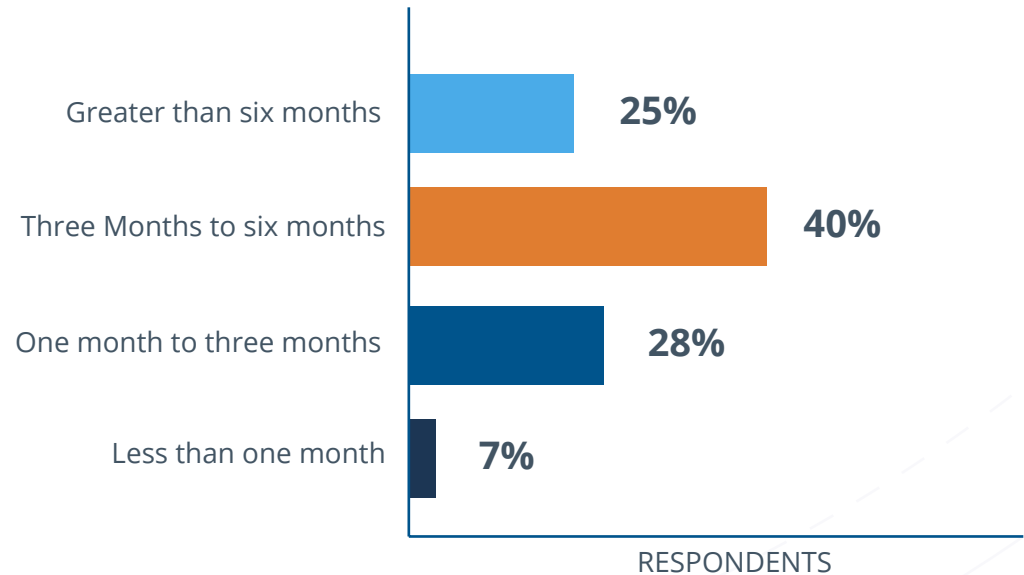


#3 What's Holding Back AIOps Adoption in the Enterprise

Implementation Cycles for AIOps. AIOps implementation timelines are a function of organizational maturity, staff exposure to machine learning, and the right investments in big data analytics for handling large-scale event volumes.

65% of organizations that have implemented AIOps tools have taken more than three months to build accurate models, train machine intelligence with the right data, and invest in staff training to deploy an enterprise-ready AIOps solution.

HOW LONG DID IT TAKE TO IMPLEMENT YOUR AIOps SOLUTION?

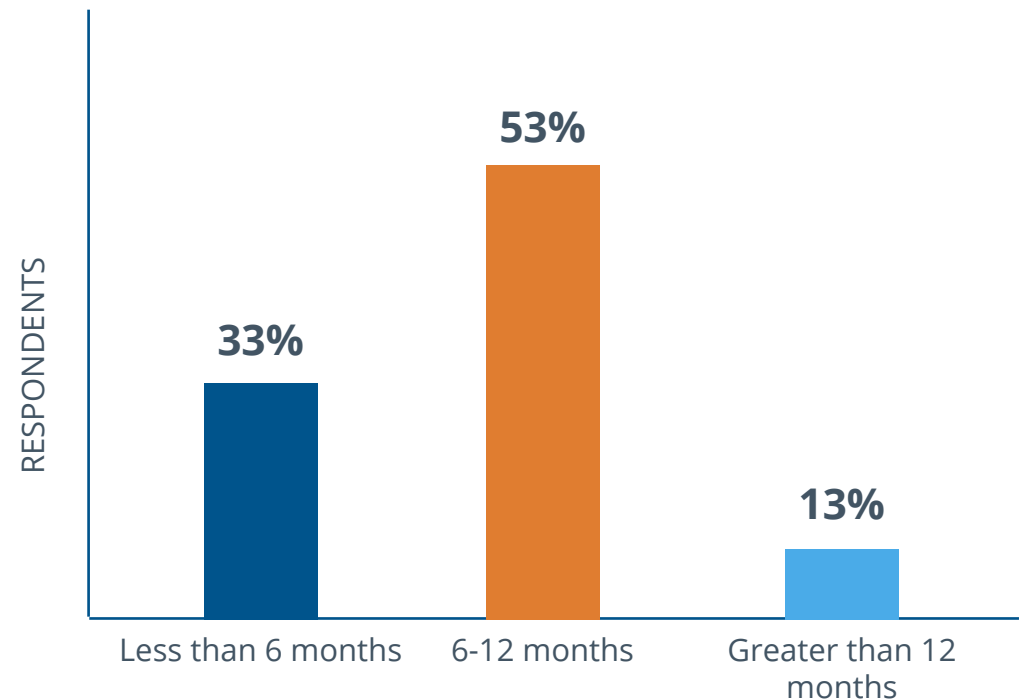


#3 What's Holding Back AIOps Adoption in the Enterprise

The Talent Gap is Real. [Stack Overflow's 2019 Developer Survey](#) finds that the average annual salary for data scientists/machine learning specialists is \$120,000. In 2018, the [LinkedIn Workforce Report](#) estimated that there is a US-wide shortage of 150,000+ data scientists.

Given the red-hot market for machine learning talent, our survey finds that it takes 53% of enterprises anywhere between six to twelve months to hire data science and analytics professionals. 13% of respondents took more than a year to hire data scientists making the case for internal retraining and upskilling to close out the data analytics skills gap.

HOW LONG DOES IT TAKE FOR YOU TO HIRE MACHINE LEARNING/ARTIFICIAL INTELLIGENCE ENGINEERS?



CONCLUSION

Here are four key takeaways from the **State of AIOps** report for innovating and leading in a world of digital disruption:

#1

AIOps Is Delivering Results. An overwhelming number of IT professionals in our survey confirm that AIOps is meeting and exceeding expectations for modern incident management.

#2

AIOps Concerns Are Real. While enterprises will bet on AIOps tools for predictive issue analysis, vendors should offer the right recommendations to address the growing concerns around data accuracy, loss of control, and long implementation cycles. If these misgivings are not promptly handled, AIOps mindshare and momentum could come to a grinding halt.

#3

Embrace AIOps For Proven Use Cases. The leading use cases driving AIOps adoption are intelligent alert notifications, root cause analysis, and anomaly detection. These three use cases are a great test bed for demonstrating the effectiveness of AIOps tools and will let IT leaders make the business case for gradually expanding the scope of AIOps implementations.

#4

Invest In Your Current Teams. The most critical ingredient for successful AIOps implementation is having the right mix of talent, with expertise in data science, machine learning, and industry awareness. Such team members are not easy to find and 56% of IT leaders are looking to both hire new employees and retrain existing staff to meet the demands of AIOps projects.

Infrastructure leaders should experiment with AIOps tools to improve the quality of service delivery, unleash the right business outcomes, and gain a solid competitive advantage. It is only a matter of time before AIOps adoption hits the mainstream and IT leaders who rethink organizational practices in line with AIOps rollouts will gain the right insights for reinventing their incident management workflow.



About OpsRamp

OpsRamp enables IT to control the chaos of managing their hybrid IT operations and act like a service provider back to the business.

Built in the cloud, the OpsRamp service-centric AIOps platform drives total visibility across hybrid infrastructures, offers complete multi-cloud infrastructure monitoring and management of business-critical services, and optimizes services through automation and integration with ITSM and DevOps tools.

To learn more
OpsRamp.com // 1.855.847.8272
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