

# The Future of Monitoring and AIOps

Annual Research Report



# Imagining the Future of Monitoring and AIOps

The increasing complexity of IT infrastructure and software is challenging IT teams and the business. This survey was conducted to understand what IT Ops execs, managers and practitioners think about the current state of their operations, the future of their systems and the role automation and AIOps might play in their transformation. Survey collection began in October 2019 and represents feedback from 1,300 IT professionals from a wide range of industries in North America. The majority of respondents hold management positions in mid-to-large companies with a thousand or more employees.

## Here are a handful of selected highlights from the research:

- IT is becoming more noisy and complex by the day. The pace and volume of infrastructure and code changes are making it worse.
- In response, teams are growing in size and using more monitoring tools. But timely outage detection, investigation and resolution remain a major challenge.
- While only 20% of respondents use AI and Machine Learning (ML) today in IT Ops, nearly 60% plan to add AI and ML in the next two years.
- AIOps is on the rise but its still in its infancy. The expectations for AIOps and its potential are both high, but today's black-box AI/ML implementations suffer from a lack of trust.
- IT Ops reporting is crucial for success - but the majority of respondents don't have adequate tools. Close to a third still rely on excel sheets!

The biggest challenge exposed in this survey within IT Ops, is the fact that most respondents see their workloads increasing in the future... yet their budgets are expected to stay flat or even decrease. Read the survey to learn more about these challenges and the vision IT Ops teams have to overcome them.

---

The biggest challenge exposed in this survey within IT Ops, is the fact that most respondents see their workloads increasing in the future... yet their budgets are expected to stay flat or even decrease.

---



1

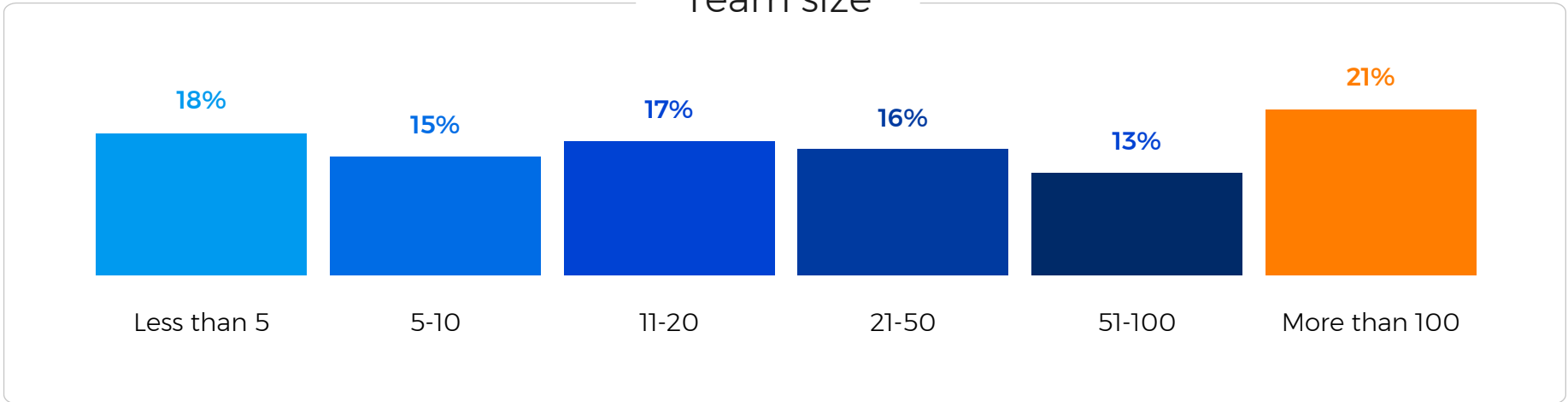
# What do IT Operations environments look like?

This year's survey reinforces the trend we've been seeing over the last few years: IT operations environments are becoming more noisy and complex by the day.

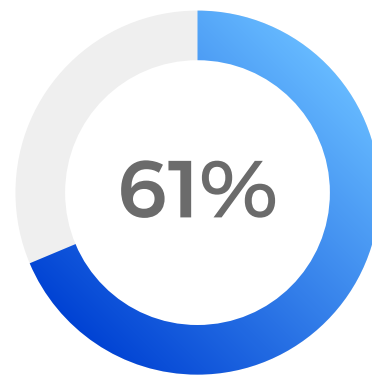
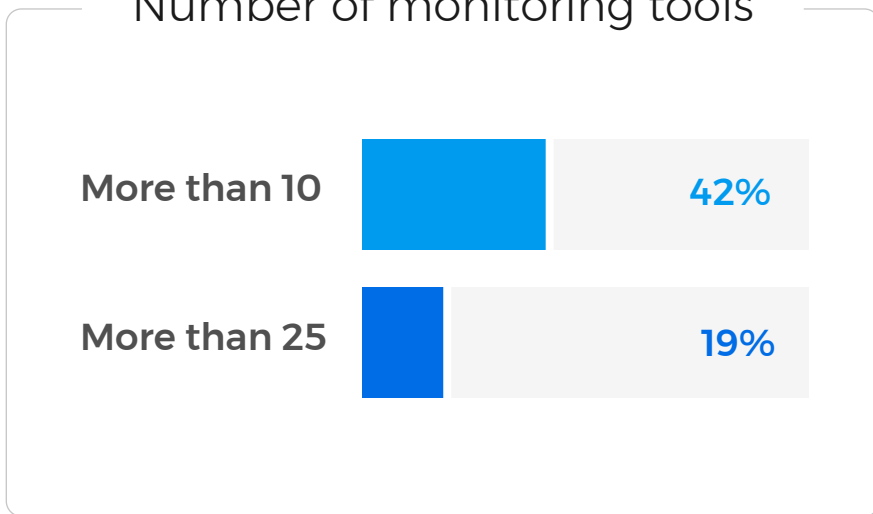
Larger teams, more monitoring tools, and higher DevOps involvement are just some of the many changes driven by this complexity.

**Constant infrastructure and code changes - due largely to accelerating cloud migrations - are making incident management a bigger and more urgent challenge for enterprises.**

### Team size

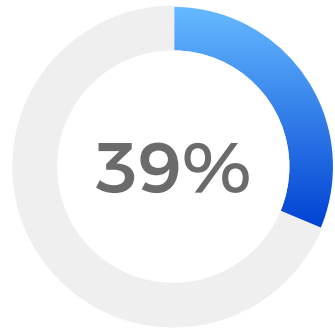


### Number of monitoring tools

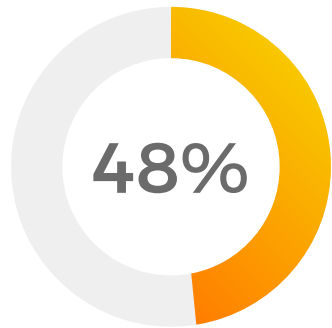


Must rely on a combination of NOC and DevOps teams to resolve incidents

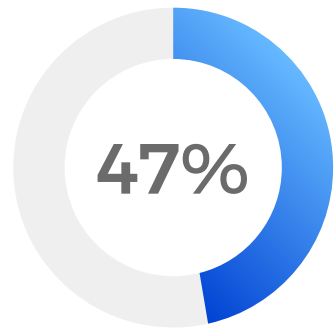
ITOps, NOC and DevOps teams are supporting fast-moving IT Stacks and experiencing changes on all fronts



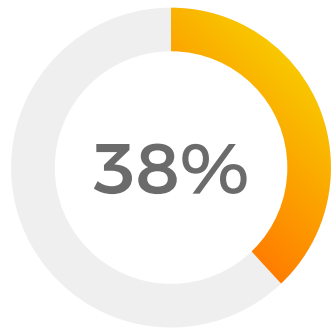
Experience constant\* infrastructure changes



Expect public cloud migration to accelerate in the next two years

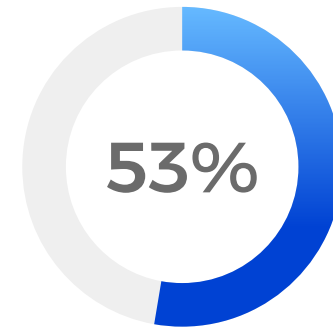


Experience constant\* code changes

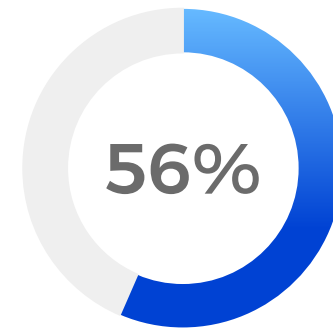


Expect private cloud migration to accelerate in the next two years

Yet with all this innovation they are realistic about their workloads and resourcing to support it all



Think their IT Ops/NOC workloads will increase in the next two years



Expect IT budgets to stay flat. And in fact, 21% think that IT budgets will actually decrease.

\* multiple hourly/daily/weekly changes.

# 2

## How satisfied are IT Ops teams with the status quo?

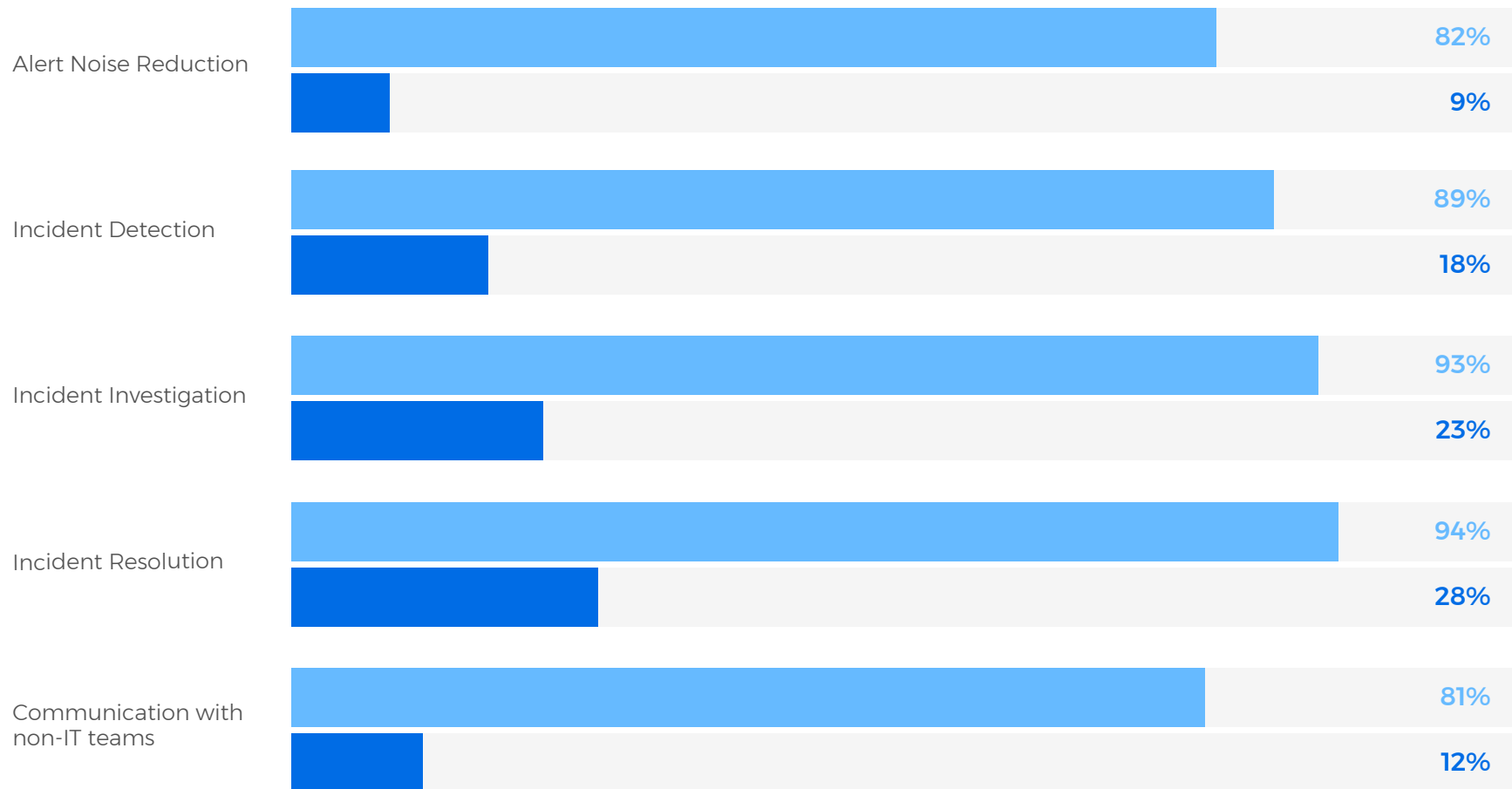
IT Ops is struggling to keep up.

We asked our respondents about their top challenges and how well their teams were handling these challenges.

The answers were similar to those from previous years: there is still a long way to go when it comes to effectively addressing current incident management challenges.

**Interestingly, while they agreed that increased automation was crucial across all aspects of IT Ops, 75% said their IT Ops tools weren't enabling or facilitating automation.**

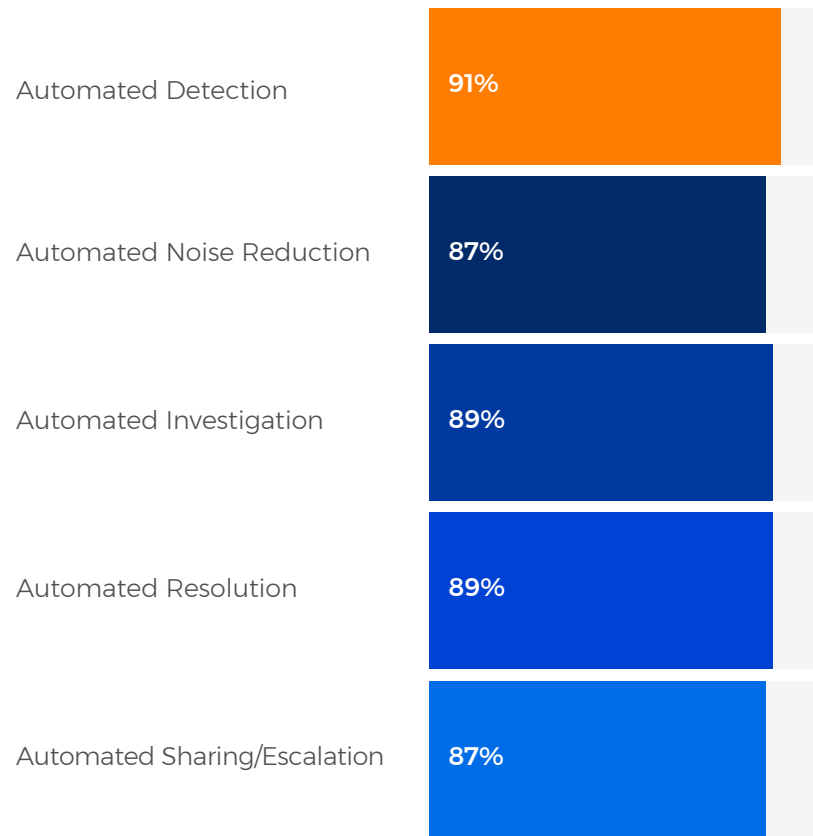
We asked respondents if the following issues were critical to their business, and how well they were handling them:



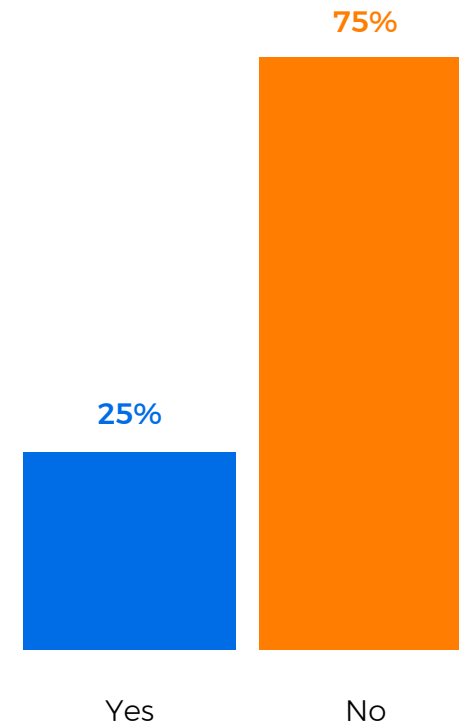
Percentage of respondents who see this issue as critical to their business

Percentage of respondents who are satisfied with their handling of this issue

## The importance of automation across IT Ops\*



## Are your IT Ops tools enabling or facilitating automation?



\* Percentage of respondents who felt automation was critical in each specific area



# 3

## IT Ops reporting - you can't improve what you can't measure

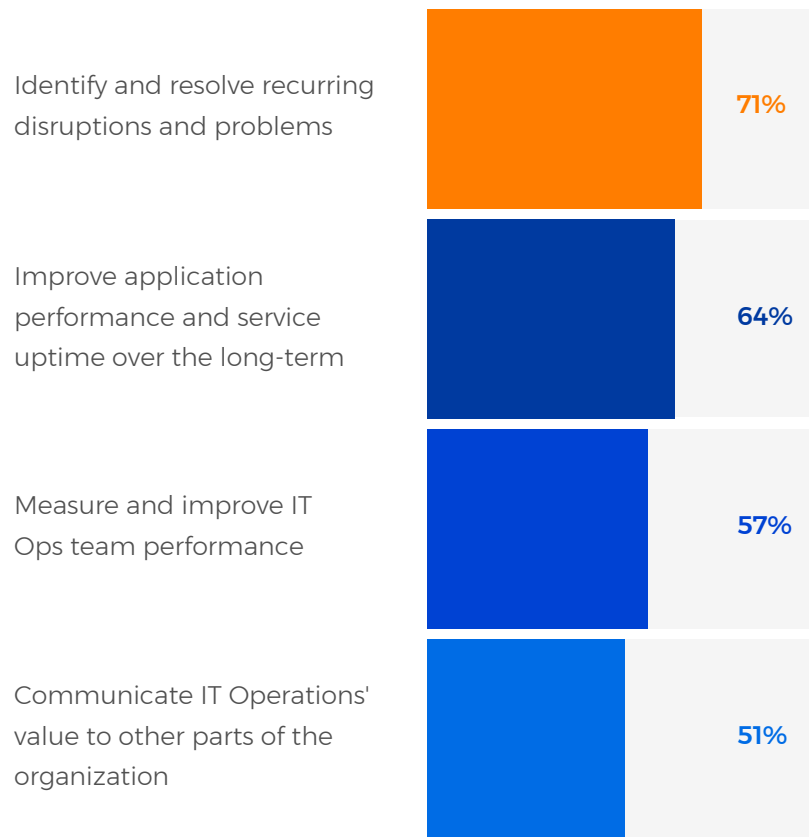
Our respondents realize that a powerful and modern IT Ops solution is essential for real-time incident management. But they also know that the key to driving long-term performance and productivity improvements is a powerful, purpose-built IT Ops reporting solution.

Even so, only about half measure and report on key IT Ops KPIs today. Why?

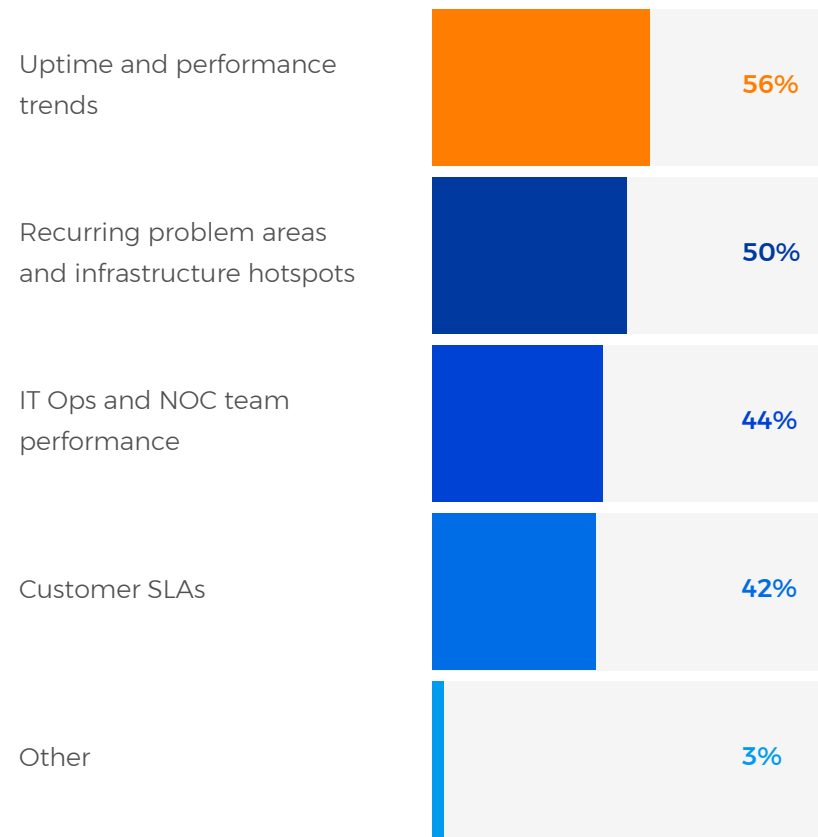
**Apparently the vast majority of enterprises don't use purpose-built IT Ops reporting and analytics tools. Nearly 30% resort to manual spreadsheets, almost 40% use generic reporting tools and more than 40% have had to build their own tools. Close to 20% are not using any tool at all.**

In summary, reporting and analytics are still very challenging for IT Ops teams today.

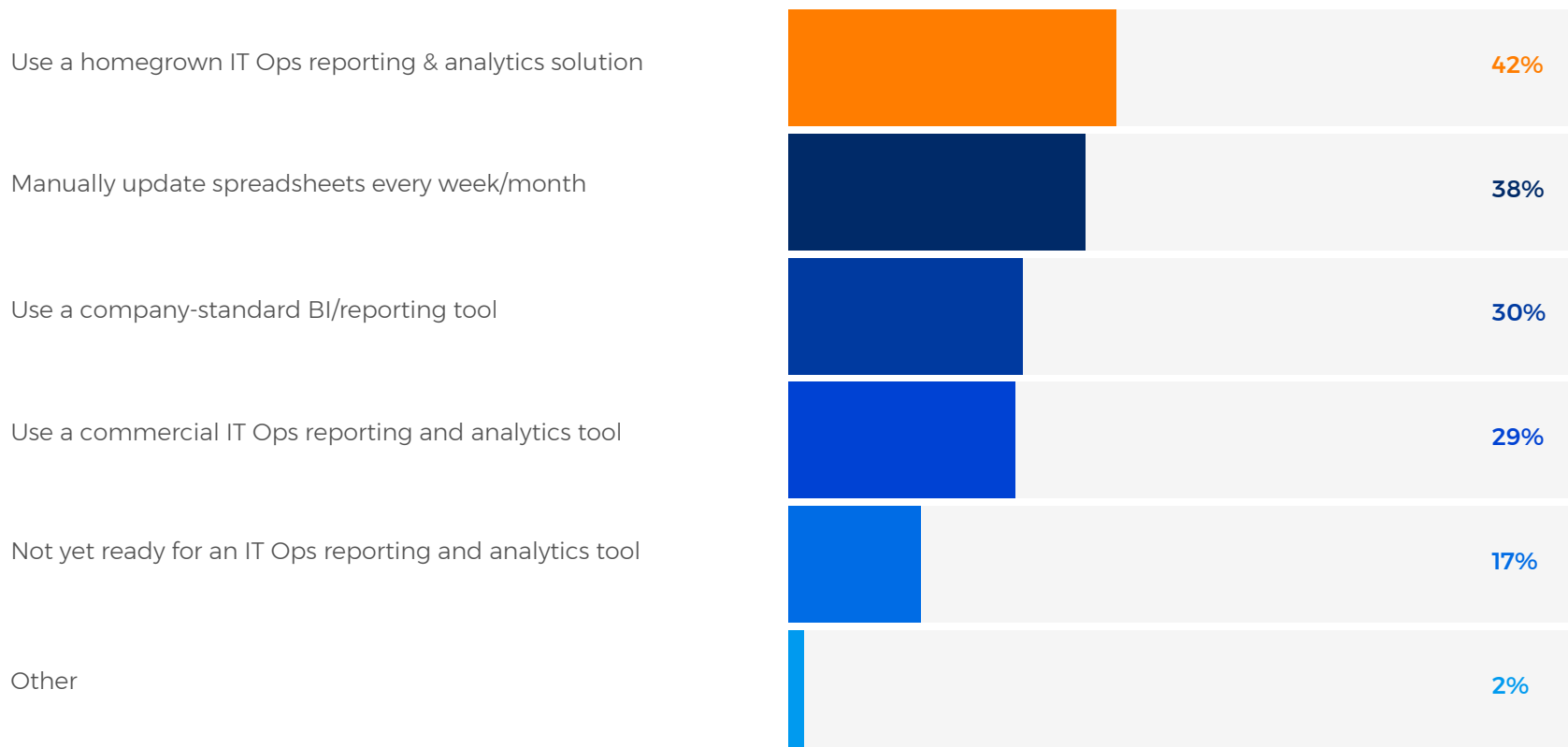
### Key capabilities required for an IT Ops reporting solution



### IT Ops metrics currently analyzed and reported on



### How IT Ops teams are measuring and reporting on IT Ops KPIs and metrics today



**Note:** Many IT Ops teams resort to multiple tools and processes

# 4

## The future of AIOps

Having asked about the status-quo, the next step was to ask our respondents about the “hottest” topic in IT Ops today: AIOps.

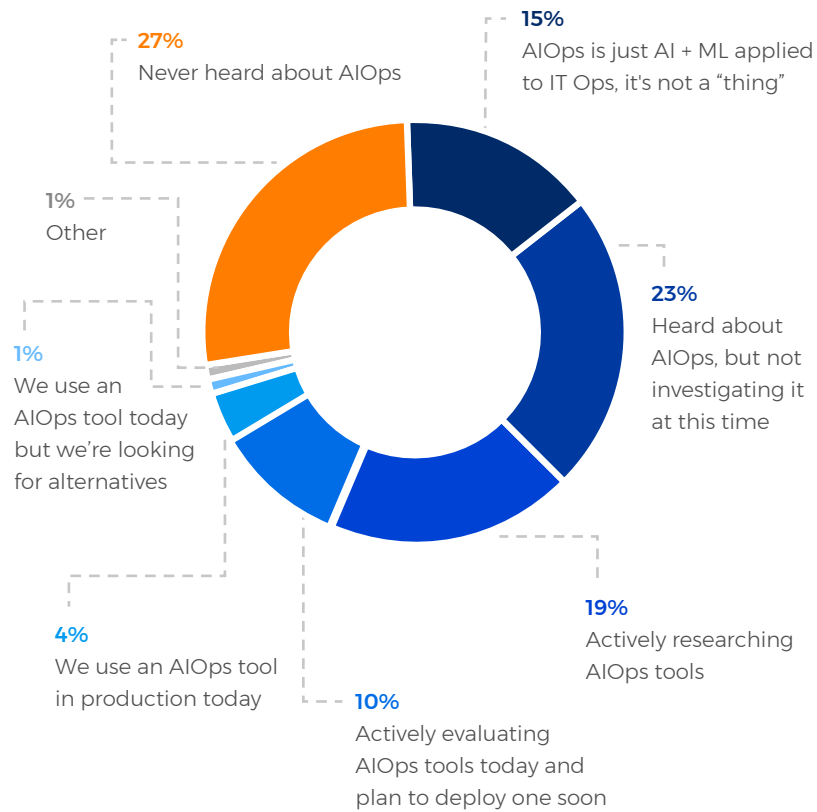
**Surprisingly, 27% had never heard of the term!**

And of the other 73%, only a small fraction were actively using AIOps tools in production.

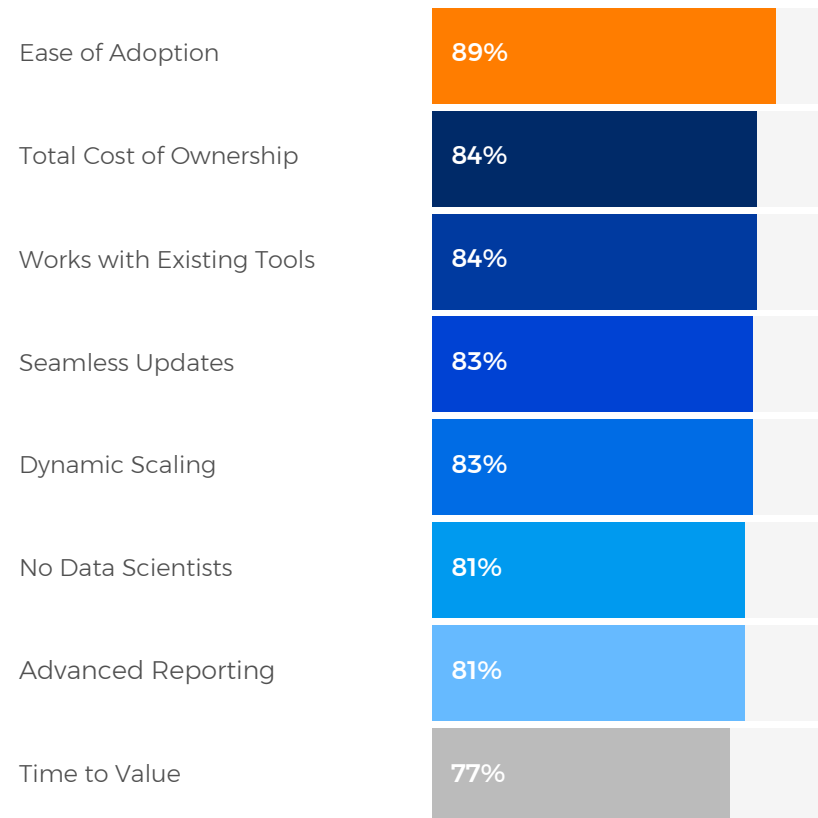
The good news for vendors is that of the 73%, nearly a third said they were researching and evaluating AIOps tools.

**Among those that *are* evaluating AIOps tools and platforms - expectations are very high, with ease of adoption being the highest priority.** And while AIOps-aware IT Ops teams have high hopes for it, they are still apprehensive of AIOps' "Black-Box" ML issues, and expressed the need for trust via transparency, testability and control!

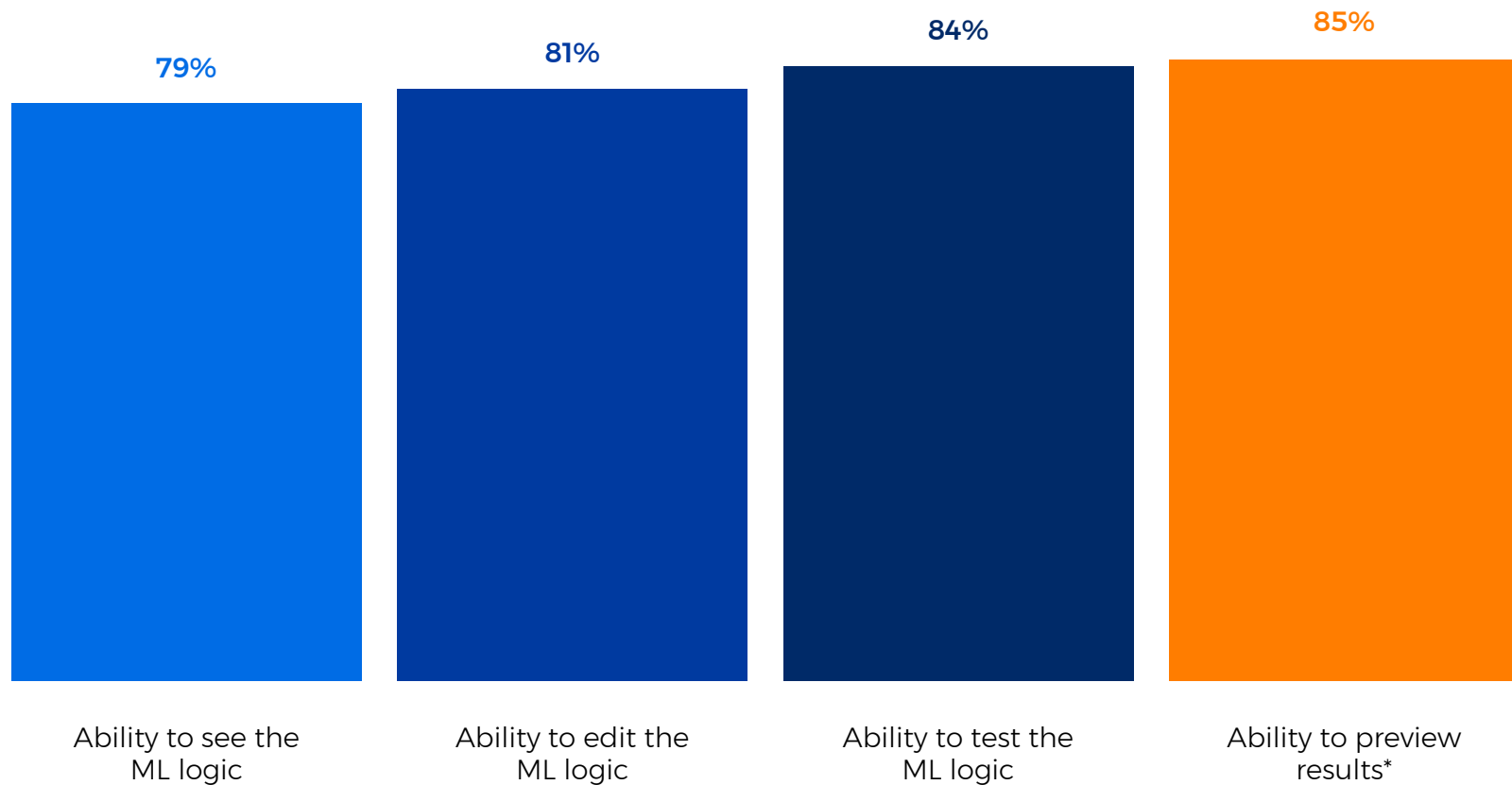
### AIOps market adoption



### AIOps: what enterprises want



In order to trust your AIOps tool, how important are these Open-Box machine learning (ML) capabilities?



\* This is the ability to preview the impact of changes and edits before new ML logic is deployed into production.

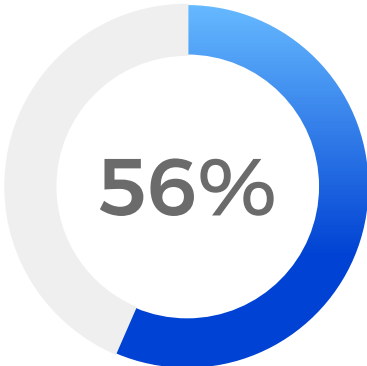
# 5

## The future is challenging. What's the solution?

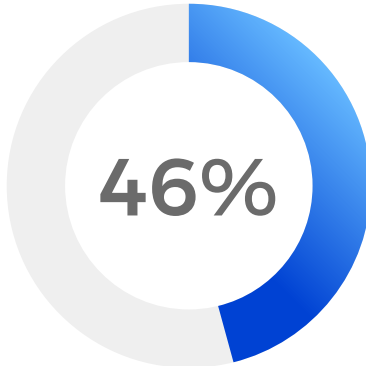
**Our respondents' vision for IT Ops is clear:** the implementation of AI and ML in their organizations to increase automation and drive autonomy across many aspects of IT operations.

In the future, the majority of respondents envision most incidents being handled automatically. Nearly 50% think that all of their tools will be powered by AI and ML.

While only 20% use AI/ML today, close to 60% say their organizations will implement it across all aspects of IT Ops in the next two years.



Believe incidents will be handled automatically in most cases

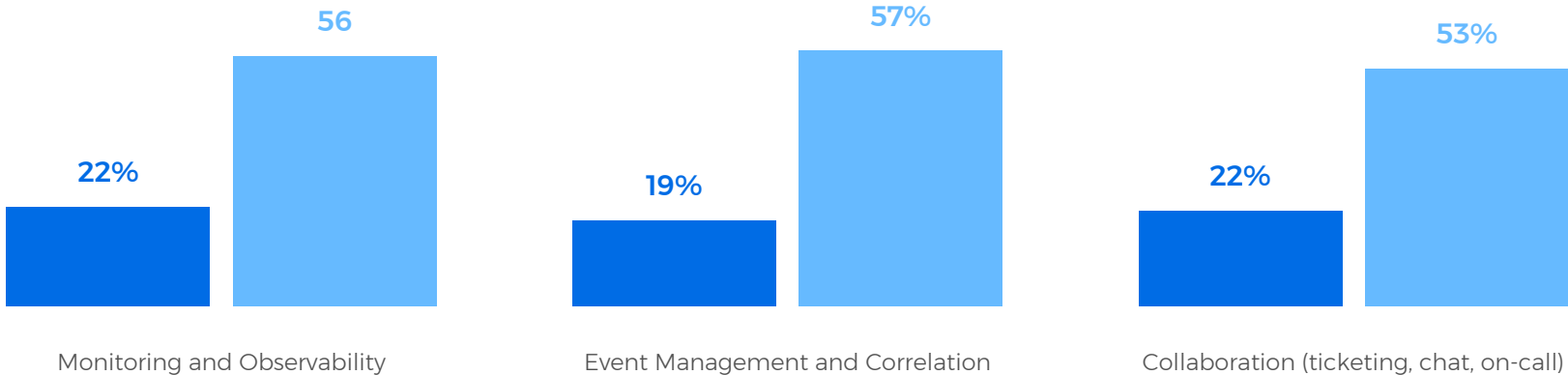


Expect AI and ML will be deployed across the organization

AI/ML: Today vs. the next two years

Using AI/ML tools now

Will add AI/ML in the next 2 years







**We asked:**

If you could change one thing about your organization's focus and efforts in 2019 and 2020, what would that be?

**Top answers:**

- More automation
- More budget, more staff
- A new approach to problem solving
- Add Machine Learning and AI
- Better collaboration between IT and business
- Less fire-fighting, more proactive management
- Improved work culture
- Focus on security
- Better tools and processes
- Move faster: development, deployment and reporting




6

# Survey methodology






**Over 1300 IT professionals participated in this years survey.**

They represented a wide range of industries, mostly in North America. The majority of respondents held management positions in mid-to-large companies with a thousand or more employees.

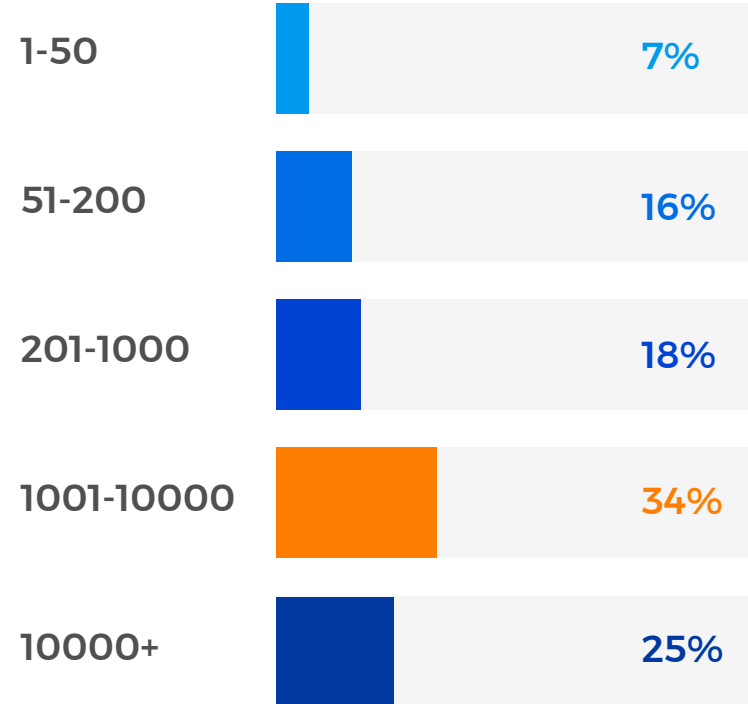


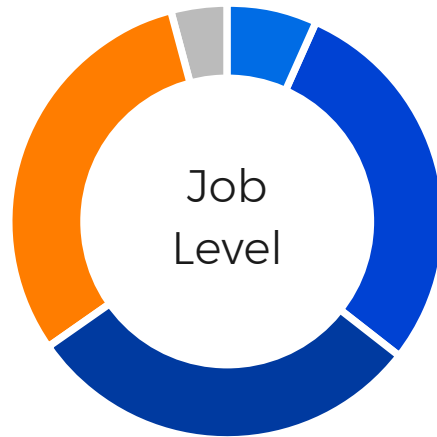
# 1300+ IT Professionals

## Top industries represented

-  Technology, Telcos and Electronics
-  Education
-  Healthcare and Pharmaceuticals
-  Finance and Financial Services
-  Manufacturing

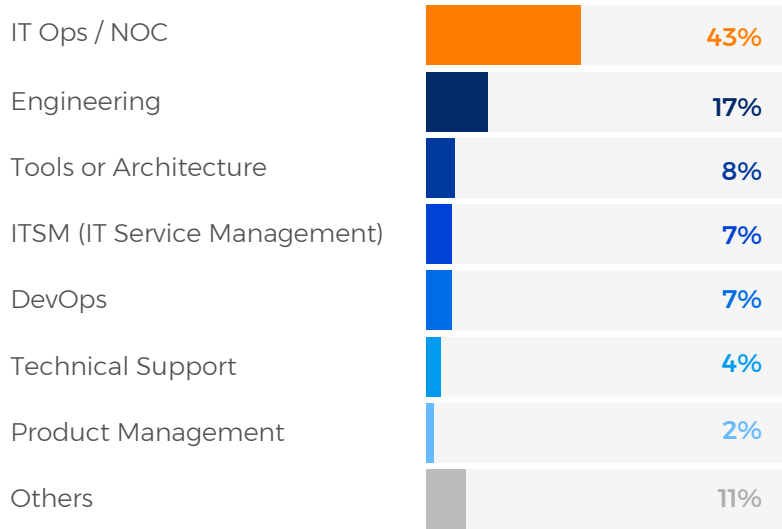
## Average company size



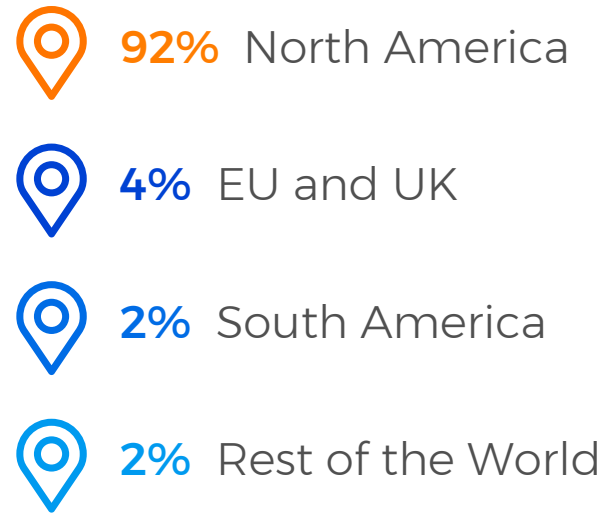


Executive/C-Level	7%
Senior Management	29%
Middle Management	30%
Individual Contributor	31%
Other	4%

Department



Location



To learn more about BigPanda Autonomous Operations,  
download our **Autonomous Operations e-book**



[www.bigpanda.io](http://www.bigpanda.io)



(650) 562-6555



[info@bigpanda.io](mailto:info@bigpanda.io)