

THE STATE OF MONITORING



Presented by



bigpanda

State of Monitoring – Why now?

You don't have to look far to realize that times are rapidly changing in the world of monitoring. A once stable landscape – consisting of just a few monolithic solutions – has exploded and fragmented as a new wave of tools better suited to the scale, complexity and agility of modern infrastructure and applications has emerged.

It was this trend that inspired us to launch the first-ever **State of Monitoring Survey**. We wanted to shine a light on what today's monitoring landscape looks like, and more importantly, delve into the challenges facing IT Ops teams and take a look at how these issues are affecting performance.

Our original goal was to collect about 500 responses, so you can imagine our surprise when the 28 question survey amassed over **1700 responses** in the space of a week. The overwhelming response we received simply validates the fact that monitoring is a critical, hot button issue for the IT community.

If we were to boil down the feedback we received to a common theme, we'd say it's this: IT is struggling to keep up with the pace of change, and the rush to modernize is leaving DevOps leaders looking for a better solution. Case in point: **80%** of respondents say that strategic monitoring is important to their organization, yet only **12%** are very satisfied with their current approach.

The results speak volumes: IT teams are receiving an onslaught of alerts, few are able to convert those alerts into insight, and the inability to quickly remediate service disruptions is a pain felt across the board. Combine these challenges with the fact that IT performance is increasingly measured by end-user satisfaction and SLA compliance – and it becomes easy to see why monitoring is more significant and critical to the business than ever before.

This feedback from an exasperated NOC engineer sums up the mood of the community:

“What's my wish for 2016? More signal, less noise!”

Read on to learn more about the insights, the challenges, and the outlook shared by over 1700 of your peers. And as always, we invite you to join the conversation! Tweet us your thoughts and feedback with the hashtag **#StateOfMonitoring**

Happy monitoring,
Team Panda

The rundown.

1

The modern monitoring stack is increasingly diverse and complex.

Represented among the top **10** most popular tools are solutions for systems monitoring, APM, web and user monitoring, and log management.

2

The top 5 monitoring challenges:

1. Quickly remediating service disruptions
2. Reducing alert noise
3. Securing budget for the proper tools
4. Quickly identifying service disruptions
5. Migrating services to the cloud

3

IT teams are feeling alert pain more than ever before.

Almost half of those surveyed receive over **50** alerts per day from their tools, and about a quarter receive more than **100**.

4

Alert floods have a clear and substantial effect on remediation.

Of those who receive **100+** alerts per day, only **17%** are able to investigate and remediate the majority (**75-100%**) within **24 hours**.

5

Strategic monitoring is clearly important, but execution is lacking.

80% agree that strategic monitoring is important to their organization, but only **12%** are very satisfied.

6

A good monitoring strategy goes a long way.

Respondents who are satisfied with their organization's monitoring strategy find critical IT issues much easier to handle and report the best rates of remediation.

7

IT performance is increasingly tied to business performance.

Customer satisfaction and SLA compliance take the lead as the most common KPIs to measure IT performance, outranking MTTR and incident volume.

8

Good news for budgets, but not for ROI.

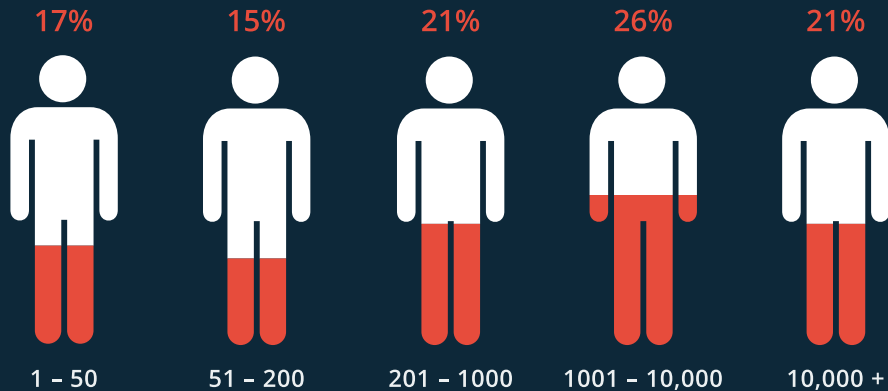
Only **16%** anticipate a decrease to their overall IT budget in 2016, but a dismal **9%** agreed that they were very satisfied with their organization's monitoring strategy, based on overall investment.

The respondents.

Respondents represented a wide range of industries and various size companies. By far, most identified themselves as "IT professionals" and team size generally skewed small.

Hybrid cloud and traditional datacenter infrastructures take the lead, as organizations are increasingly taking advantage of the scale and efficiency of cloud computing.

COMPANY SIZE



INFRASTRUCTURE COMPOSITION



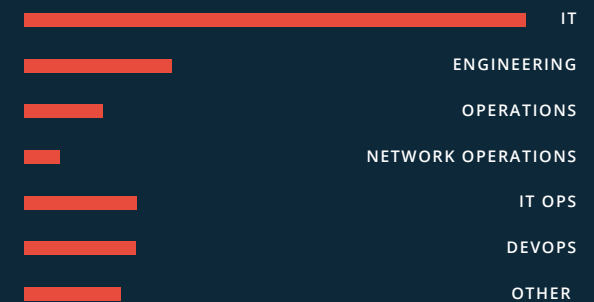
1700+

INDUSTRY PROFESSIONALS

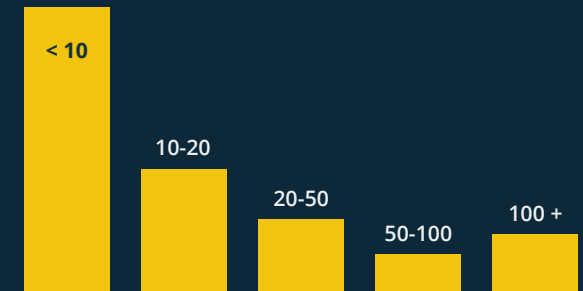
TOP INDUSTRIES

- 1) TELECOMM, TECH, INTERNET & ELECTRONICS
- 2) FINANCE & FINANCIAL SERVICES
- 3) HEALTHCARE & PHARMACEUTICALS
- 4) EDUCATION
- 5) MANUFACTURING

TEAMS REPRESENTED

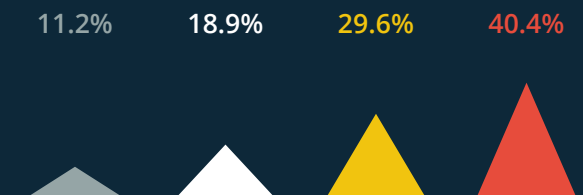


TEAM SIZE



JOB LEVEL

EXECUTIVE/C-LEVEL
SENIOR MANAGEMENT
MIDDLE MANAGEMENT
CONTRIBUTOR



The modern IT stack is complex, diverse & noisy.

Looking at the most popular monitoring tools alone, we can see how diverse today's stack has become: represented among the top 10 are tools for systems monitoring, APM, web and user monitoring, and log management.

What are today's most popular IT tools?



Monitoring Tools

1. SolarWinds
2. Nagios
3. Splunk
4. AWS Cloudwatch
5. New Relic
6. Logstash
7. Pingdom
8. PRTG
9. AppDynamics
10. Zabbix



Deployment Tools

1. Puppet
2. Chef
3. Jenkins



Collaboration Tools

1. Jira
2. Slack
3. ServiceNow
4. BMC Remedy
5. HipChat

More tools, more challenges.

IT systems and processes are evolving to become smarter, more agile, and more effective. Monolithic apps have been split into microservices, containers are replacing traditional VMs, and continuous integration is significantly accelerating development cycles. However, despite its many advancements, the modern IT stack presents its own set of challenges.

Top 5 monitoring challenges*

83%



Quickly remediating service disruptions

79%



Reducing alert noise from organization's monitoring tools

78%



Securing budget for the proper monitoring tools

76%



Quickly identifying service disruptions

75%



Migrating services to the cloud

** Based on percentage of respondents who identified each statement as a challenge for their organization*

“

You can't fix what you don't see is wrong

”

“

This year our focus will be on improving root cause analysis and reducing MTTR

”

Alert noise is a loud & painful issue.

One thing came in loud and clear: **alert noise is an issue**. Almost all respondents identified reducing alert noise as a challenge and the majority reported high volumes of alerts from their tools.

Even more troubling is the effect that alert floods appear to have on performance: crippling a team's ability to quickly and effectively remediate issues

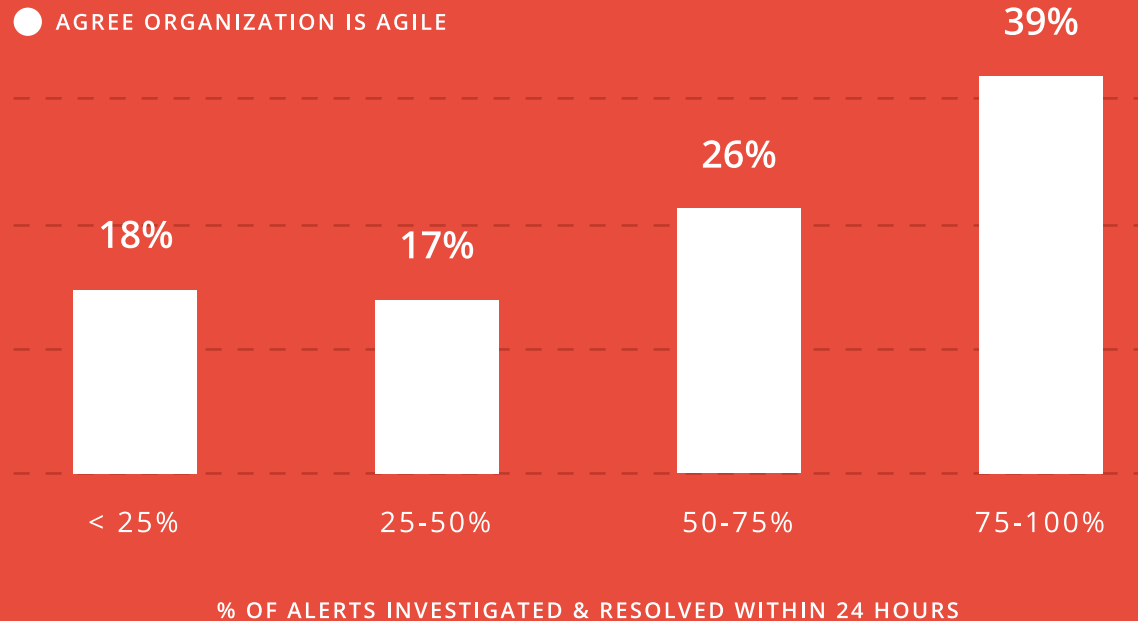


79% report that reducing alert noise is a challenge.

Almost half receive **over 50 alerts** per day and about a quarter receive **more than 100**.

Alert floods have a clear effect on remediation. Of those who receive 100+ alerts per day, **only 17%** are able to investigate and remediate the majority within **24 hours**.

There is a clear correlation between the ability to remediate alerts and the perception of agility. The more alerts that respondents are able to investigate and resolve in **24 hours**, the more likely they are to agree that their organization is agile.



“

*As our company has grown,
we just can't keep up with alerts*

”

“

*We need better way to spot problems;
not digging through logs or obscure
error messages*

”



Strategic monitoring matters.

The results underscore just how critical it is to establish an thoughtful and strategic approach to monitoring. Benefits abound: Alerts are easier to handle, service disruptions are easier to manage, and teams are better equipped to identify root cause and handle future occurrences. But with a measly 12% of respondents claiming to be “very satisfied” with their current approach, it’s clear that we’ve still got a long way to go.

80% agree a that strategic monitoring is important to their organization, but only **12%** are very satisfied with their approach.

57% report having a defined monitoring process in place. Of those, **69%** are satisfied with their ability to respond to alerts – versus **36%** for those who do not have a defined process.

Among those who consider their organization’s monitoring process to be strategic:

69% also have a process in place to identify the root cause of incidents

60% agree that developers are actively involved in supporting applications

75% report that developers build monitoring into their code

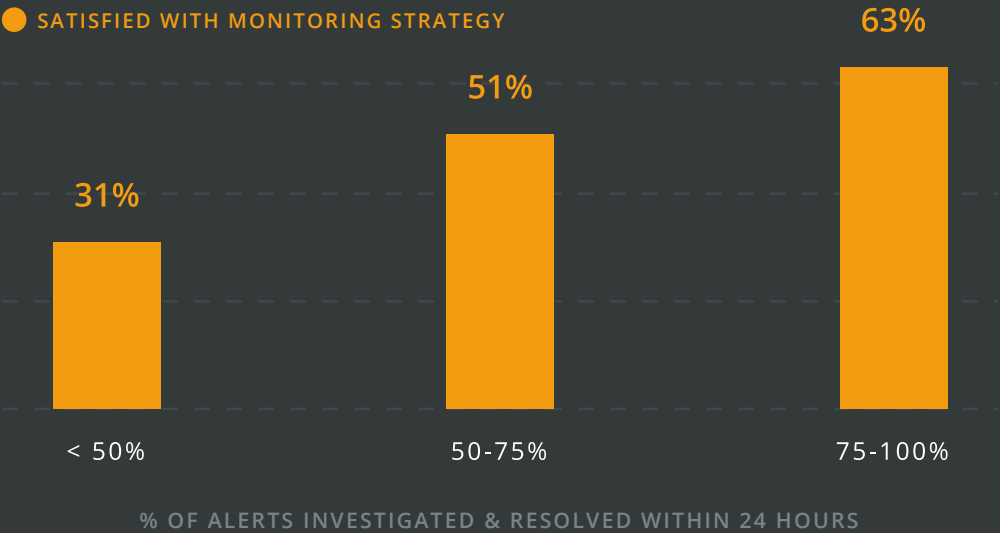
89% consider their organization to be agile



Those satisfied with their organization's monitoring strategy find critical IT challenges much easier to handle.



Among those that reported the best rates of remediation (**75-100%** of alerts investigated/resolved in **24 hours**), we see that the vast majority (**63%**) were also satisfied with their monitoring strategy.



“
If I could make a change, I'd require monitoring to be built into apps
”

“
I want devs to get more involved
”

“
Our culture needs to change so we use monitoring to drive future decisions
”

IT performance is increasingly tied to business performance.

In 2016, system performance and availability have a more direct and critical impact on reputation and brand loyalty than ever before.

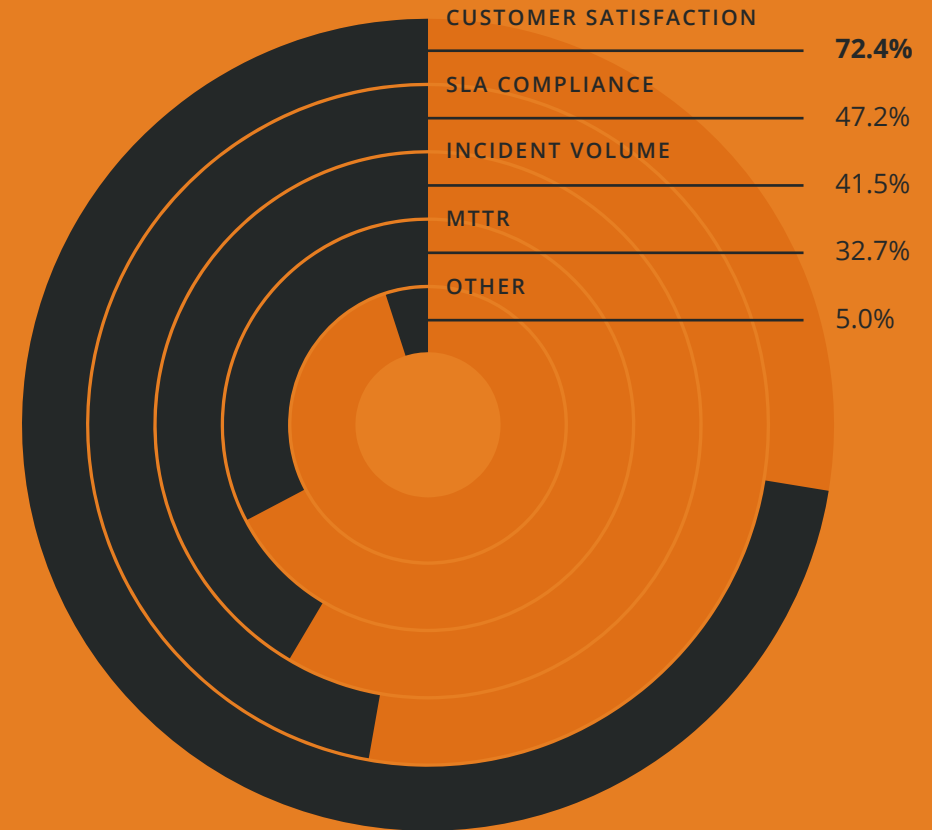
So it's perhaps not surprising that the performance of IT teams is increasingly measured against the results of the business, with customer satisfaction and SLA compliance taking the lead over "traditional" performance metrics like incident volume and MTTR.

“

Our biggest challenge is maintaining SLAs and customer satisfaction

”

TOP PERFORMANCE KPIs

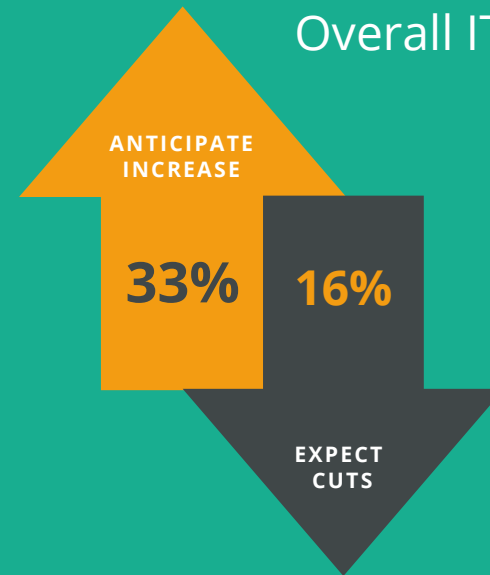


Budgets are strong, but ROI is another story.

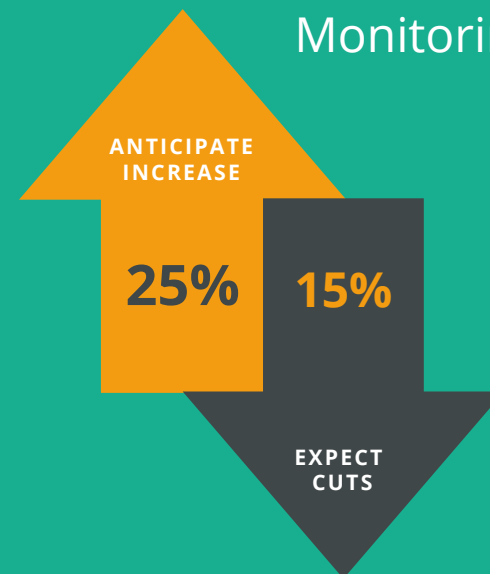
While it appears that most IT budgets will remain on par or increase in the coming year, satisfaction with ROI for monitoring tools and resources is extremely low, signaling a growing need for IT to critically evaluate their approach to monitoring.

Although fear of budget cuts is low, only **9%** stated that they were very satisfied with their monitoring strategy, based on overall investment.

Overall IT Budget



Monitoring Budget



What do you anticipate will be your biggest IT monitoring challenge of 2016?

TOP THEMES

1. Scaling monitoring with growth
2. Improving monitoring strategy
3. Alert correlation or noise reduction
4. Maintaining SLAs or other performance KPIs
5. Cloud migration

"Making our tools work together!"

"Scaling as we move to the cloud"

"Staying agile while growing"

"Automation and streamlining processes"

*"Better anticipating
downtime"*



If you could make one change to your current monitoring strategy, what would it be?

TOP THEMES

1. Alert correlation or noise reduction
2. Improving monitoring strategy
3. Centralizing monitoring
4. Staffing
5. Automation

"Being proactive, rather than reactive"

"Actually having one"

"Correlating my flood of alerts!"

*"Simplifying our systems into
a single pane of glass"*

"Reducing time to resolution"



Lessons learned.

A

IT stacks are evolving, so your tools and processes must as well.

The IT stack of 2016 is one that's increasingly effective, but also incredibly complex. There's no "one size fits all" solution anymore for monitoring. To manage systems in a smart and effective way, organizations need to not only ensure they have the right tools in their kit, but that each tool works in harmony to support an effective overall monitoring strategy.

Key to this is ensuring that all parts of the stack are automated. Software and infrastructure management have made strides in this regard, while service assurance has been left in the dust.

Unless monitoring automation is coupled with service automation, organizations will fail achieve true, long-term agility at scale.

B

More tools = more noise. Address alert floods or risk getting buried.

With the number of tools it takes to effectively manage IT systems is on the rise, it's little surprise that 79% of respondents identified alert noise as a challenge for their organization. The real risk here is what alert floods mean. Every minute that it takes to resolve an issue is more than just a minute of downtime or critical failure – it's another step towards an SLA breach and a rift in customer trust.

Too often, NOCs are left scrambling in a sea of wrong turns or false alarms, making it near impossible to identify the root of the problem. Implementing a smart alert correlation strategy brings order to the chaos, as teams are able to clearly see which alerts are related to the same incident, and in turn significantly reduce MTTR.

C

Your monitoring strategy matters – period.

This is a fact that can't be ignored. The benefits of an effective monitoring strategy speak volumes: Alerts are easier to handle, service disruptions are easier to manage, and teams are better equipped to identify root cause and handle future occurrences.

Organizations that are failing in this regard need to take a crucial look at their overall approach: Do they have the right tools at their disposal? Does each part of the stack work in harmony? Is anything being done to reduce noise or improve root cause identification?

Remember: your monitoring strategy affects not only IT health, but the health of the overall business.

Interested in more?

Check out [our predictions](#) for the modern NOC in 2016



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Join the conversation – #StateOfMonitoring