

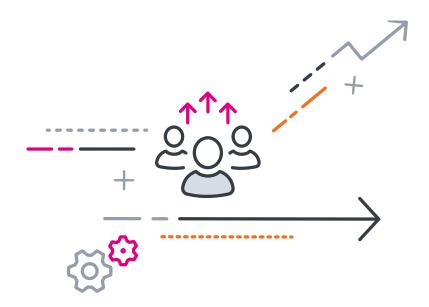
Increasingly dynamic environments create new challenges for developers, site reliability engineers (SREs), IT administrators and the customers they serve. This isn't breaking news. Often for the sake of speed, teams operate with their own toolsets to monitor and maintain the systems and infrastructure within their purview.

But the result is tool and application sprawl, which often has a ripple effect — similar to tossing a stone in a pond. The initial impact may seem small, but the far-reaching ripples create massive headaches if left unchecked. Just consider how multiple teams using non-integrated, point tools to monitor applications and IT environments can lead to blind spots, constant context switching, increased mean time to detect (MTTD) and mean time to resolve (MTTR), lack of scalability and increased costs of managing multiple licenses and tools.

But why is there tool sprawl to begin with?

Cloud-spurred complexity. Getting benefits from transforming operations requires changes to applications that make them more complicated to operate and troubleshoot. This increased complexity makes it harder to monitor with old tools and often leads to setting up several tools to monitor the different parts of a cloud application.

Fortunately, it doesn't have to be that way. Here's what to consider in the process and how to do it effectively.



## The call for tool consolidation

Whether it's self-motivated change or change spurred on by fast growth, operations can find themselves in a bind — often without knowing it.

In the case of the former, operations often adopt multiple cloud services and practices — building apps with microservices deployed in containers across multicloud and hybrid cloud environments. It's agile and scalable. But transforming tech stacks can't be done effectively without an accompanying plan to monitor and observe them at all levels. Without an evolving approach to monitoring and managing these new environments comes the risk of not truly understanding the environment/infrastructure and operations, leading to downtime, security risks and poor customer experiences.

In the latter case, growing and expanding as a business can have a dark side for those on the backend. IT operations and DevOps teams may not even realize what's actually being employed and what the repercussions are until their costs begin to spike. Sometimes companies go through acquisitions, and while using their point tool set miss the fact that there are also other tools from vendors that clash with their existing ecosystem.





Some of the most common reasons IT and DevOps teams look to consolidate tools include:

Missing data. Many monitoring tools sample or throw out data and impose limitations on the structure of data they ingest. This creates critical visibility gaps both for users and analytics algorithms, resulting in more issues that impact customers and take longer to resolve.

**Operational efficiency.** Containers take minutes to spin up and down. Serverless functions are invoked on the order of seconds. Microservices are a complex web of interactions and relationships. Monitoring tools that weren't built to operate in seconds and scale quickly to handle bursts in traffic miss issues and are ineffective.

Lack of intelligence. There's simply too much data and most monitoring tools don't come with any built-in intelligence to help make heads or tails of it. There are too many alerts, and it takes too many people too long to figure out the issues.

Too many tools. Due to the issues above, tool sprawl is a real problem. It causes siloed data and disjointed, swivel-chair workflows and requires teams to learn how to use multiple tools.

It's evident that the problem of tool sprawl can't go unaddressed.

## What can you do about tool sprawl?

As companies migrate workloads to the cloud and modernize their legacy applications while shifting to cloud-native environments, they need a single, tightly integrated toolchain that can monitor, troubleshoot, investigate and respond to system behaviors. This is where a consolidated data platform with monitoring and observability capabilities that support quick action comes in. It is the only way to truly understand what's happening in an environment, enabling developers and IT managers to continue delivering the best customer experiences (that don't go down).

How is this different from traditional monitoring? Monitoring is the act of observing a system's performance over time. Monitoring tools collect and analyze system data and translate it into actionable insights. **Observability** uses metrics, trace, log and event data to provide a holistic understanding of your system, including its health and performance. It lets you discover the unknown unknowns.

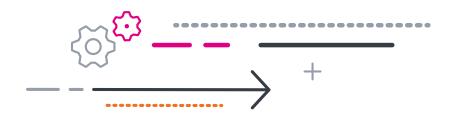
Many vendors will claim to provide observability capabilities. But often, they've merely rebranded traditional monitoring tools. Application performance monitoring (APM) is not the same as an observability system. Although APM is critical for identifying application performance issues, it misses infrastructure insights and log data, which are instrumental in your troubleshooting and root cause analysis (RCA) workflow. Traditional, disjointed monitoring tools can't provide the speed, scale and analytics capabilities needed to support modern digital business like real-time visibility, smart alerting and rapid troubleshooting. As more and more vendors claim to provide "observability," it's essential to understand that monitoring does not equal observability.



A comprehensive observability system should and can help:

- Prevent degradation of service with modern capabilities that make it fast and easy to isolate specific problems.
- Break down silos between troubleshooting and monitoring tools, as well as silos between teams and data.
- Act as a manager of managers (MoM), so more time can be spent on innovating and scaling the business. Rather than ripping and replacing what you have, a MoM will manage and be the single point of truth for all other tools.
- Streamline incident response and encourage better collaboration, eliminating war room efforts and cost.
- Enable full visibility into the current state of the application and how data flows between the myriad of microservices.
- Improve customer experience with less disruptions from downtime and fewer service interruptions that decrease mean time to resolve (MTTR).

If what's currently happening in your operations does not reflect the above, you have work to do.



## Which components do you need?

Setting up an observability system has many benefits, but to maximize these benefits, you have to make sure that your solution covers the entire ecosystem. It should include the following:

- · Infrastructure monitoring that lets you determine the performance and health of the actual infrastructure your app is running on.
- · Application performance monitoring that monitors your application and its dependencies, making sure that you can see when issues occur and isolate them to particular parts of the stack.
- Digital experience monitoring that gives you insight into real user experience and lets you exercise functionality of your application through synthetic testing from around the globe.
- Service monitoring that provides end-to-end visibility of your critical services and the underlying apps and infrastructure that support them with pre-built dashboards that visualize business health, processes and KPIs.
- · A log investigation product that helps move from "what's wrong" to "why is it wrong" by helping teams quickly analyze and gain insight from application logs.
- · Incident Response that routes issues to the right team and gives them tools to fix them fast.







Consolidating your monitoring tools into a single observability system frees your engineers and system administrators to focus on your core business, offers an integrated tool for all the observability components, and makes reliability of your observability infrastructure someone else's problem.

Here are the top five reasons to consolidate your toolset:

- · Deliver products faster
- Improve customer experience and retention
- Optimize costs and minimize your management burden
- Increase developer release velocity and employee retention
- Reduce unplanned work

You may already be using better monitoring and observability tools, or considering the best way to adopt them. But let the data end any doubts. When tool consolidation is done right, the results speak for themselves.

According to the Splunk State of Observability Report, organizations with established observability practices are:

- 2.9 times more likely to enjoy better visibility into application performance.
- Almost twice as likely to have better visibility into public cloud infrastructure.
- 2.3 times more likely to experience better visibility into security posture.
- Twice as likely to benefit from better visibility into on-premises infrastructure.
- 2.4 times likelier to have a tighter grasp on applications, down to the code level.
- 2.6 times likelier to have a fuller view of containers (including orchestration).
- 6.1 times likelier to have accelerated root cause identification.
- Way more successful at launching innovative products/services, having developed 60% more new products in the last 12 months.

better visibility into application performance

Almost better visibility into public cloud infrastructure

better visibility into security posture

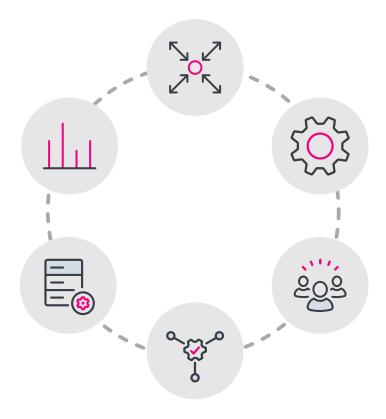
More success with launching innovative products/services, having developed

more new products in the last 12 months

## **Conclusion**

There is a reason you're constantly told you need to stay on top of your data.

The reason is simple, and you probably know it already. The volume of data you need to monitor and understand as an IT or DevOps professional will continue to grow. The pace of change will only increase. The key to your value lies in your ability to stay ahead of these changes and help drive business success. As DevOps and IT teams migrate to cloud-native technology, they must troubleshoot complex issues that point-monitoring tools are ill-equipped to handle.







Learn how industry leaders conquer complexity with **Splunk Observability Cloud.** 

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