3 BEST PRACTICES FOR ENHANCED DATA OBSERVABILITY

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The complexity of modern cloud environments is both a blessing and a curse. While organizations can use dynamic SaaS tools and other cloud-based software to scale and optimize, they also must devote more resources toward keeping track of the moving parts.

By and large, they've struggled to do that. Only 27% of organizations have full visibility into their tech stacks. This lack of visibility means that when issues pop up, IT leaders spend hours investigating the root cause of the problem and how to address it. To get this time back, IT leaders should invest in enhanced observability strategies to better predict potential events in real time as well as data observability practices that allow the organization to upscale its cloud investments without losing track of how various systems interact.

What is data observability?

Data observability refers to the ability to use data points like external outputs to gain insight into a complex system's behavior and measure the health of the system. The term originates from control theory, a concept in engineering where engineers work backward from an output such as logs to learn how internal factors coexist with one another. In the context of IT, developers monitor and analyze output data to assess the health of a specific system and what may be contributing to any inefficiencies.

The necessity of data observability has risen as IT environments grow more complex and the necessity of maintaining secure infrastructure remains. The cloud promises innovation, but traditional data monitoring practices are too infrequent to keep up. Traditional monitoring techniques like penetration tests—where testers try to exploit vulnerabilities in a business's IT systems—are a great example of this. While IT teams do glean valuable insights from these tests, they may only happen periodically, such as once every quarter. IT environments are always evolving, and these snapshots don't give IT teams enough to work off.

Without continuous visibility, IT teams must review massive amounts of historical data to determine how to get critical systems back online after an outage, which can lead to lost productivity and dissatisfied customers, employees or loss of reputation. A lack of visibility can also disincentivize continued expansion into the cloud as business leaders must weigh whether making IT advancements in the cloud is worth the heightened security risks that come with not having visibility. To avoid these problems, IT leaders should aim to achieve full observability in their tech stack and equip themselves to handle new data and systems as they are introduced.

Best Practices For Enhanced Data Observability

Most IT teams are well-versed in data monitoring, a practice in which employees can view past

and present data environments to identify issues. But data observability is a different animal. The goals of observability are much loftier: gaining clear, actionable insights on the entire data journey and detecting and predicting issues before they affect the end user.

It can be difficult to know where to start, but here are three best practices to keep in mind as you work to improve observability throughout your organization.

1. Invest in observability tooling and training.
Your IT team may not have the bandwidth to maintain full observability alone, which is why companies consider enlisting the help of an observability solutions vendor. The right observability vendor can help aggregate mass amounts of data and connect the dots between applications. You'll understand how each application in your tech stack is performing and see how it affects end users.

While observability tools offer tremendous value, you also need personnel who can oversee them. This means training or recruiting IT talent who are committed to observability, ensuring existing IT employees have the bandwidth to monitor observability tooling and educating employees across other departments about the importance of observability.

2. Get leadership on board.
A major barrier to investing in observability is securing executive buy-in. This can be trickier than it initially appears. Even if developers understand the value of observability, it can be difficult to translate this technical language into a clear business case.

Rather than explaining the intricate details of observability tooling, focus on how observability affects revenue—stress the lost productivity that results from scrambling to find the source of technical issues. Bring up how the annual cost of downtime for businesses that have made significant investments into observability is only $2.5 million compared to $23.8 million for businesses that haven't—and how not having observability and secure systems in place can affect cybersecurity insurance costs. This messaging may be even more effective coming from an independent security auditor, who can point out inefficiencies in your business's current monitoring tools and recommend observability solutions that can address these problems.

3. Don't go on alert overload.
Full observability into your tech stack can help break down data silos between teams, but be careful not to go overboard. Some IT leaders can set up their observable solutions in a way that overwhelms their employees. When an issue occurs, every employee on the team may receive an alert about it, regardless if the alert is relevant to their specific role. This can lead to alerts that are relevant or urgent to the employee slipping through the cracks.

To avoid this, prioritize the ability to classify errors by incident, customize notification preferences and summarize the complete health of the systems. This flexibility can help IT employees avoid unnecessary confusion and respond faster to issues.

The cloud and observability need to go hand in hand.
Traditional monitoring tools and techniques often do not get the job done anymore. Multi-cloud environments require consistent, comprehensive and real-time visibility for organizations to remain secure and stable. Fortunately, following these best practices for enhanced data observability can give organizations the ability to reap the benefits of these advanced technologies and quickly recover from unexpected disruptions.

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