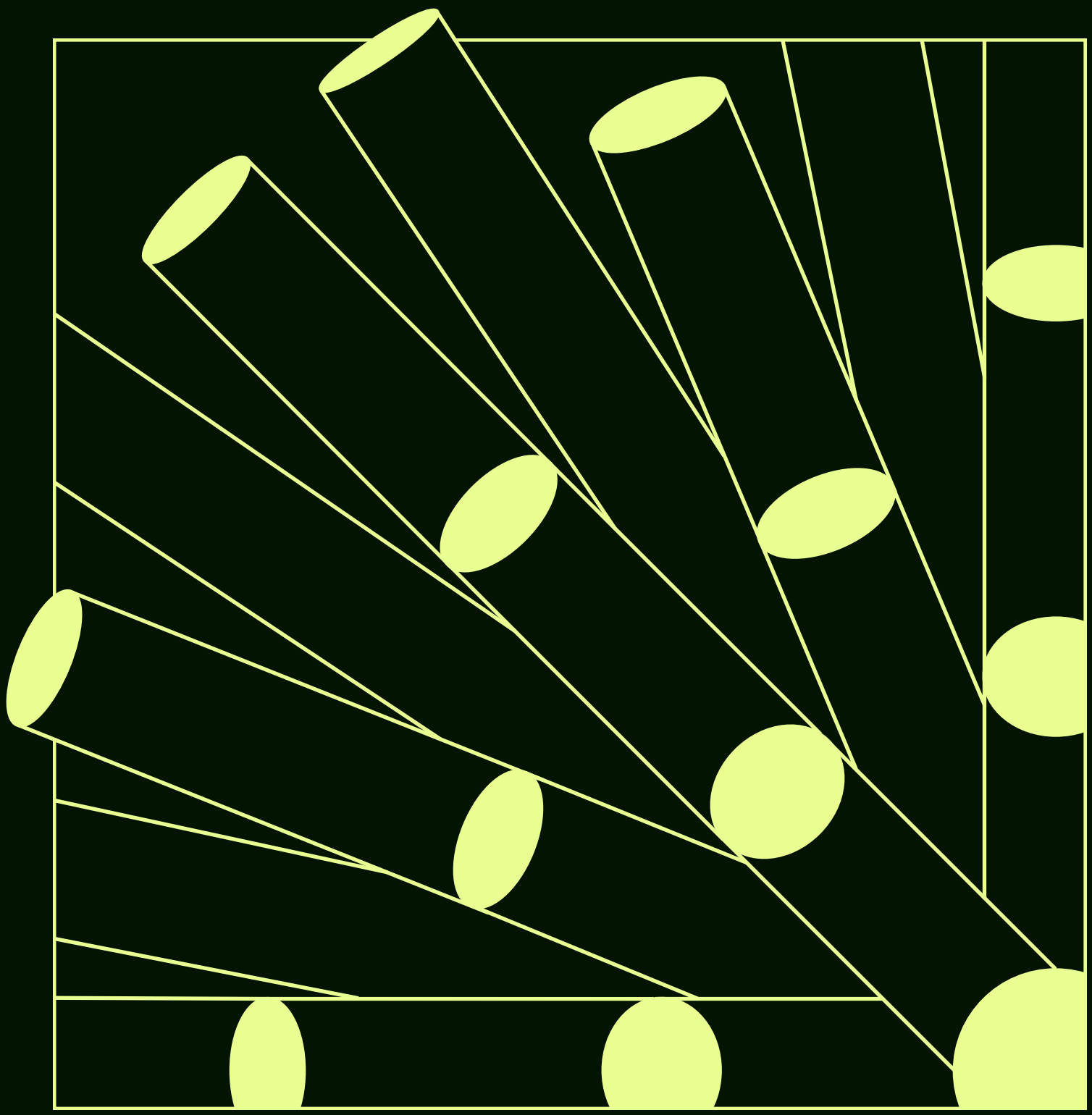
THE IMPACT OF OBSERVABILITY DATA - A CROSS ORGANIZATION STUDY



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WHITE PAPER

INTRODUCTION

With the combination of increased demand for digital services and growing complexity across distributed systems, the need to collect and process observability data (logs, metrics, and traces) has never been greater. Using that data to understand the health of your applications and environments gives teams the ability to respond to issues faster, mitigate risk, and ultimately improve efficiencies that provide a competitive advantage. SREs have historically relied on this data to ensure performant digital experiences. Still, trends are emerging that show other parts of the organization are increasingly relying on this data to perform critical functions. Security Engineers need telemetry data to detect and respond to threats. Developers are using it to troubleshoot and debug applications before release. With the number of use cases increasing, it's important for organizations to understand how users in different roles utilize observability data, and what challenges they face while trying to access it

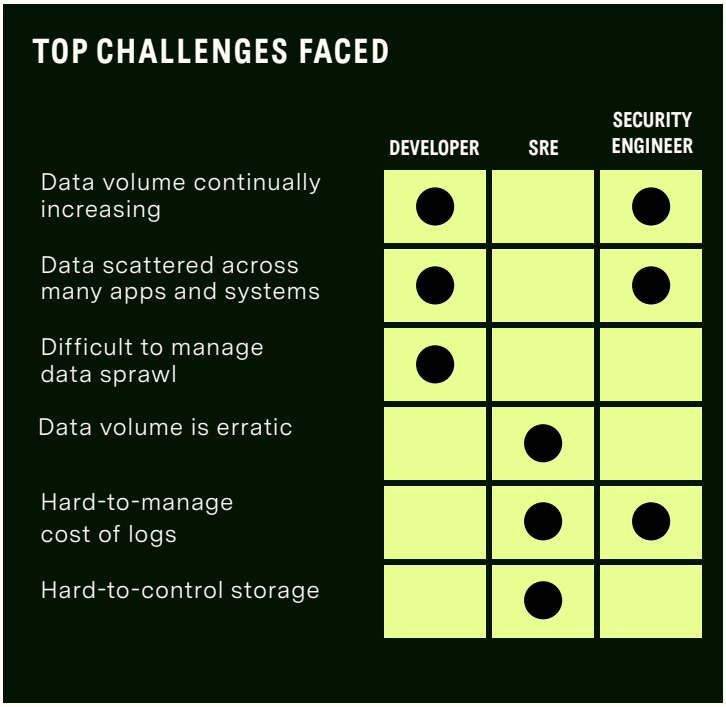
BACKGROUND

Mezmo commissioned the Harris Poll to conduct a survey among 300 Developers, Security Engineers, and Site Reliability Engineers (SREs) in the United States. The goal of the research was to better understand how these important audiences interact with observability data, the key pain points they face, and how they might utilize observability pipeline tools to help them make decisions faster. The research also uncovers the similarities and differences in needs and priorities between the three roles.

NEVER-ENDING DATA

When discussing the challenges each role faces when trying to access observability data, there is considerable overlap. Firstly, Developers and Security Engineers face data volume that is continually increasing as well as data being scattered across many systems and apps. Developers are also dealing with difficult-to-manage data sprawl, while SREs are managing data volume that is erratic and hard to control storage. In short, data volume is increasing dramatically, and is becoming difficult to control effectively.

Making decisions in real time is critical because delays of even a few minutes can prove problematic in many situations. For example, if you rely on an observability pipeline to detect cyberattacks, waiting minutes to identify a breach could mean that attackers will have already compromised mission-critical resources by the time you react. Or, failing to detect an application performance problem in real time during peak usage could translate to substantial losses in revenue if users abandon your app because of failed transactions or slow response rates.



Additionally, there is strong evidence showing that all of these roles are attempting to control various data sources across silos, and are interacting simultaneously with multiple products to do their job; while the three roles rely upon a median of four data sources to get their job done, Developers and SREs interact with three products to access that data while Security Engineers use two simultaneously.

	DEVELOPER	SRE	SECURITY ENGINEER
Data sources used simultaneously	3	3	2
Data sources used to get the job done	4	4	4

Interestingly, while developers cite continually increasing data volume being a pain point, they and SREs are least likely to say that keeping up with the new data being added is difficult, with about one in five of each role finding it challenging. Security Engineers are more likely to struggle with new data sources being added, around two in five find it tough to keep up. Over the last 12 months, Developers and Security Engineers have seen a median of two new data sources being added and SREs saw a median of three added

SKYROCKETING COSTS

In addition to data volume, cost control was listed as a top challenge across the three groups. More specifically, SREs and Security Engineers cite it is hard to manage the cost associated with collecting and storing data. While there is some confidence in the ability to predict cost, the fact remains that the sheer volume of data creates budget pressures that are concerning across the organization.

Concern with cost when aggregating data

	DEVELOPER	SRE	SECURITY ENGINEER
Not at all a concern	1%	8%	4%
Somewhat of a concern	34%	47%	50%
Great Concern	65%	45%	47%

OBSERVABILITY DATA USE

Over half of Developers, SREs, and Security Engineers are on the frontline using observability data daily, with another third of each role using it 2-3 times per week. Typical machine data interaction looks a bit different for each role. Developers are likely troubleshooting and debugging, Security Engineers are focused on cybersecurity, firewall integrity, and threat detection and SREs are doing troubleshooting and analytics, as well as monitoring uptime.

MAKING DATA ACTIONABLE

When looking at observability pipeline solutions in the market to help better control and take action on data, all three roles report that support for data sources from the cloud is pivotal. Developers and SREs are also interested in making sure that cloud application data sources are supported, while SREs and Security Engineers need to be sure that there is firewall data source support. Rounding out the top three most important data sources that need to be supported for Developers is network sources and IoT applications for Security Engineers.

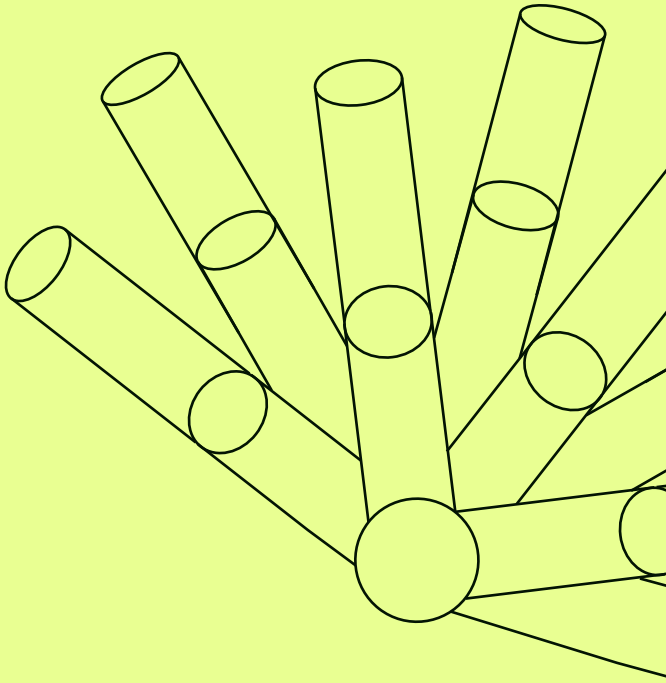
DATA SOURCES TO BE SUPPORTED IN A PIPELINE SOLUTION

	DEVELOPER	SRE	SECURITY ENGINEER
Cloud services	●	●	●
Cloud applications	●	●	
Network	●		
Firewalls		●	●
IOT Applications			●

A majority of all three roles agree that it is important for newly adopted technology to integrate with existing data management platforms, however, Developers and Security Engineers are more likely than SREs to think it is very important.

There is some crossover among the roles with regards to data transformations that are the moshelpful in better understanding the data. SREs and Security Engineers find log transformationsand sampling helpful. Developers and Security Engineers think scaling transformations are most helpful. Developers also find augmentation and enrichment helpful, while SREs also find aggregation beneficial.

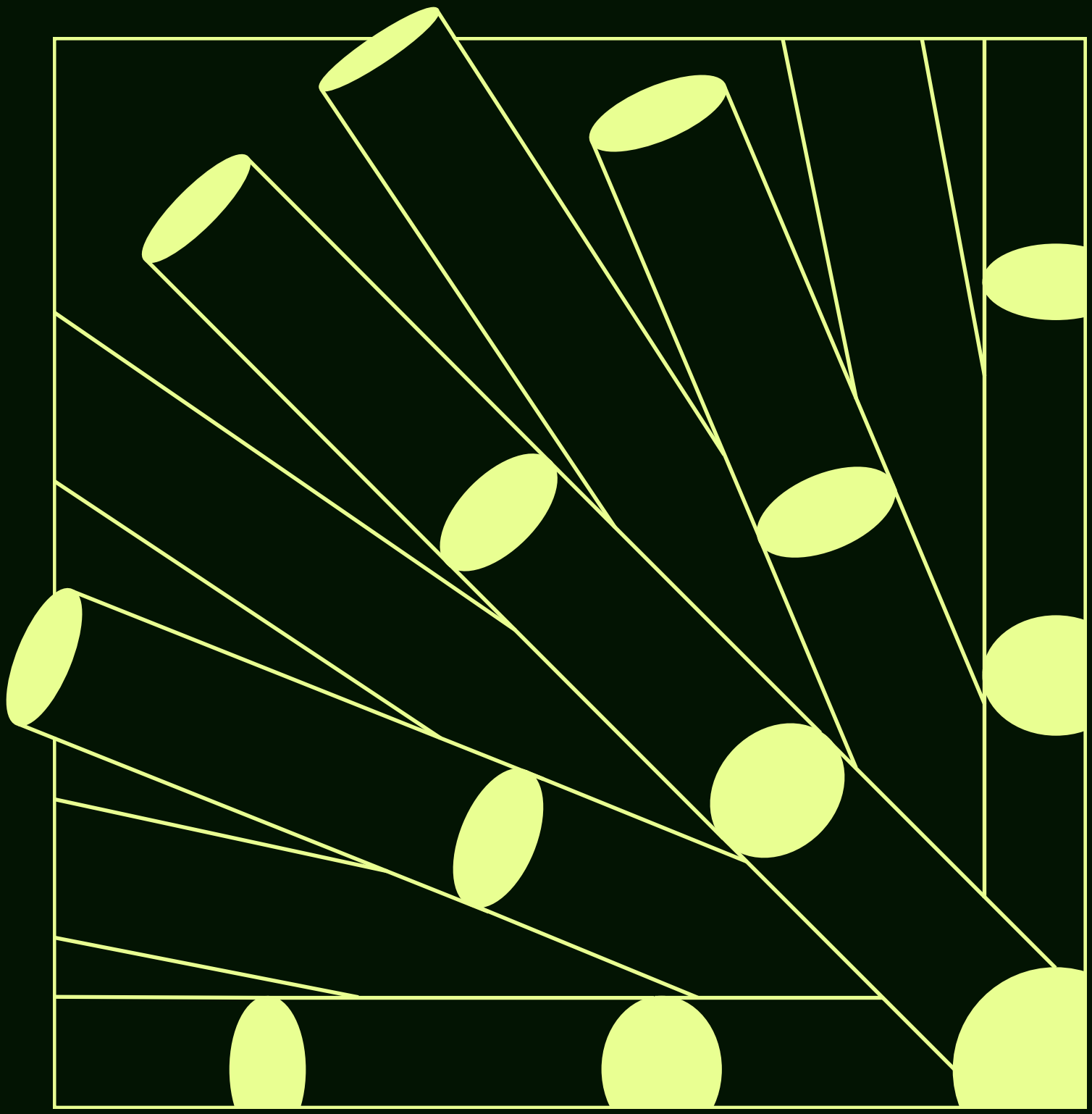
CONCLUSION



As observability needs evolve, there are a growing number of users who are looking for access to actionable telemetry data for different use cases. One solution that is gaining in popularity is pipelines specifically created for telemetry data to collect, transform, and route data for actionability. Mezmo's Observability Pipeline is designed to bring the right data to the right users to address various use cases. By providing an easy-to-use platform that provides more access and control, combined with features that make data more actionable, teams across the organization can unlock the power of their data to reduce costs, ensure compliance, and improve customer experience and security.

To learn more about the Mezmo Observability Pipeline, visit our website, or schedule a demo with one of our solution specialists.

SALES CONTACT: OUTREACH@MEZMO.COM
SUPPORT CONTACT: SUPPORT@MEZMO.COM
MEDIA INQUIRIES: PRESS@MEZMO.COM



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