

One of the oldest business school adages is "You can't manage what you can't see." In technology circles, "If you didn't log it, it didn't happen," is more appropriate. Logging has always played a key role in technology operations. But as straightforward applications and infrastructure give way to complex, cloud-based, containerized environments using CI/CD pipelines, the sources and volume of log data has grown exponentially. Now, every component within the tech stack generates continuous volumes of log data. It's critical to ingest, analyze and correlate all of this event and telemetry data at scale, in near real-time and over longer periods.

Traditional logging platforms were not built to ingest, much less analyze, the amount and velocity of data generated in today's cloud platforms and private data centers. But those constraints are being addressed incrementally. Innovations, including cloud-based logging services and effective big data analytics, allow enterprises to both collect and analyze log data at scale. These innovations promise to disrupt log management as we know it.

In 2022, Techstrong Research polled our community of DevOps, cloud-native, cybersecurity and digital transformation readers and viewers to take their pulse on logging. The Techstrong Research PulseMeter results show that complexity (34%) and cost (28%) plague existing logging systems. This is problematic as respondents expect that expanding logging will result in enhanced visibility (36%) and improved security posture (27%).

Logs Are Still Stored Separately

- Organizations are starting to centrally aggregate log data, but almost two-thirds have separate log stores.
 Do you capture, store and analyze all of your log data?
- (26%) No, only select logs
- (22%) Yes, but logs stored in different places
- (33%) Yes, all logs are stored in a central platform
- (19%) Not sure, different teams handle logging





Innovative use cases like Kubernetes monitoring and observability demonstrate a need for a more sophisticated logging infrastructure, but it's very early for both use cases.



Techstrong Research Analyst View

Cost and complexity create the most significant challenges to scaling log collection and analysis. However, as emerging use cases like monitoring and observability mature, expanding capacity and capability are becoming increasingly important. From many conversations with enterprises, we find they want to centralize their data collection. Still, the economics of existing systems force operations managers to make tough choices regarding what data to collect. Logging innovations, including cloud-based platforms, better analytics, and open source solutions promise to disrupt the status quo and provide enterprises with significant price-performance advantages over traditional logging systems. Use cases requiring more extensive collection and more compute-intensive analytics are rapidly becoming feasible, which is exciting for organizations looking to be more proactive in identifying issues in their environments.

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