Modern Logging for Modern Account Opening

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Quick Summary

INDUSTRY
Financial Services

REQUIREMENTS
- Hosted on Google Cloud
- Sophisticated UI
- Robust indexing
- Fast search
- Easy to use, standard syntax
- Compliant logging

MEZMO SOLUTIONS
- Modern UI
- Automatic indexing of arbitrary key values
- Fast Live Tail and Search
- Google-like search syntax
- Compliant with SOC 2 Type 2, PCI-DSS Level 1, HIPAA, GDPR, Privacy Shield, & CCPA

BUSINESS IMPACT
- Empowers developers to own their monitoring
- Faster time to detection with real-time Alerts
- Compliant and secure
- Zero configuration or maintenance
We sat down with James Qualls, a Director of Engineering at MANTL, to hear how Mezmo is empowering the developers on his team to own their monitoring. James is one of two Directors of Engineering at MANTL. He handles Infrastructure, and his counterpart, Eric Gomez, handles Application Architecture. James and his team are responsible for everything underneath the work that Eric’s team stands on top of.

About MANTL

MANTL is a platform that helps banks and credit unions modernize the online and in-branch account opening experience. It automates the process and provides robust design capabilities that allow it’s users to fully brand their application’s pages and customize the flow to fit their customers’ needs.

Many financial services companies have been taking steps towards digital transformation over the better part of the last decade. This business change became a top priority for retail banks and credit unions when the in-person experience was forced to move online overnight due to COVID-19. At the start of the pandemic, MANTL experienced 705% volume growth as shuttered or downsized branches drove more people to embrace digital banking. It has remained instrumental in helping people across the country open new bank accounts from the safety of their own homes.

In an article discussing the impact of the pandemic on the financial services sector, Deloitte notes that “the overall number of banks in the United States may plummet, from 4,500 in 2019 to 3,150 by 2024.”¹ Now, more than ever, it’s essential that banks and credit unions provide a modern experience for their users that help them feel secure and connected. The MANTL team uses Mezmo’s compliant logging solution to help monitor and troubleshoot their systems to give their customers peace of mind.

Why logging is key to James and his team

James summed up his experience in one sentence: “From the architectural level, logging is critically important, and Mezmo changes the game.” It was important to James that his developers have the tools that they need to take ownership of their logging and monitoring. From his experience at MANTL and previous companies, he knew that logging could be a major pain point for developers, and that pain would translate to resistance in ownership and slower time-to-resolution on bugs. To streamline their process, he decided to shift to structured logging and started using JSON-based logs.

Unfortunately, on many platforms, JSON-based logging is a terrible experience. James’ team tried several different platforms for logging before choosing Mezmo. On many of those platforms, they ran into problems ranging from auto-indexing headaches to bottlenecks from managing alerts or sharing information. Then, they tried Mezmo and discovered a platform without the headaches.

Using Datadog and Mezmo

The MANTL team uses Datadog for system-level metrics but needed a more robust logging solution to help them manage their JSON-based logs. Datadog requires you to explicitly create facets for every field you want to make searchable, doesn’t

support plain text search over objects, and doesn’t auto-index the keys.

As an example, MANTL uses application IDs across its stack. These keys are arbitrary. Some teams might use “Application ID” or “Application Id” or “Application_id” as the key, which makes the support of different casing necessary. That key may live within the structure of the log or underneath another object. Mezmo offers the ability to ingest JSON logs and automatically add faceting. This is a gamechanger for James and his team.

“The last thing on developers’ minds when creating logs is also creating the facet in Datadog to index them. When we evaluated Datadog, we ran into this exact scenario” said James. Without that facet in place, the key wasn’t searchable and couldn’t ever be searchable after the fact, causing problems when debugging or doing forensics work.

In addition, the MANTL team found the maintenance overhead was a nightmare. Every time a developer performed structured logging in their application, they would have lots of data to put into the logs so that they could debug and locate issues in applications. In comparison, “Mezmo is basically a no-maintenance solution; our application developers don’t need to think about special application tooling,” says James.

That’s not to say they got rid of Datadog. Datadog enables the MANTL team to monitor the systems they don’t actually write. Monitoring these additional services—such as Postgres, Redis, Kafka, or pubsub for pressure metrics, queue pressure, disk pressure, ram pressure, and CPU utilization—is where DataDog shines. They provide MANTL a comprehensive alerting platform for other types of metrics and data to send arbitrary metrics from any system as long as the agent is installed.

But when it comes to logging, James went with Mezmo to solve for log-based metrics and log-based alerting. “If there is anything that our applications are doing, we have the freedom to log whatever we want whenever we want, and it will be searchable, and we can alert based on thresholds,” says James. Overall, the focus on JSON-based structured logging using Mezmo helps his teams get in, get what they need from their logs, and get back out to work on whatever they are focusing on, without all of the overhead of maintenance.

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Empowering developers

Developers are subject matter experts. If there is a critical path or the possibility of some type of issue, they want to get ahead of it. MANTL logs those scenarios, and then it is the developer’s responsibility to go in and figure out what they care about and have those Alerts routed to them however they want. “By shifting the responsibility off to the developer, we’re able to eliminate bottlenecks within the Engineering org and scale-out the management of alerting and monitoring,” says James. To get there, however, you need to set up everything. With Mezmo, MANTL didn’t need to preconfigure all of their applications for logging. Individual teams determined what they would like to log as structured messages, shifting the responsibility for logging while getting out of the way.

Developers care about log-based metrics as well as reacting to mission-critical issues within their apps. It was important to James when evaluating different platforms that his team had the ability to set up Alerts and trigger automated incident response. With Mezmo, MANTL found many integrations that fired to Victor Ops, Slack, email, and more so that users can be notified of issues in real time. James finds the combination of log-based metrics and log-based alerting extremely powerful, saying, “Once we get beyond the initial alerting phase, Mezmo becomes indispensable for tracking down the specific issues. Logs are viewed in context, no other platform does this.” That context helped developers at MANTL track down problems faster, getting them to solutions and ensuring that the platform stayed up and improved over time.

Overall, MANTL found that, once developers could own their logging, the Infrastructure team (James’s team) and Application Architecture team (Eric’s team) were able to work better together. For MANTL, the ability to remove bottlenecks and scale using Mezmo meant they were able to respond to the needs of their customers and enable more people to bank from the safety of their own homes.

“We needed a modern SaaS-based logging system with fast search, a modern interface, and common sense, and Mezmo provides that.”
About Mezmo

At Mezmo, everything starts with our mission: To help developers be more productive so they can focus on what they love. We are a mission-driven, developer-first company. This mission is simple, but bold. We focus on logging because logs are the lifeblood for developers — it is the core atomic unit for how modern engineering teams understand what’s going on with their systems, monitor what they are doing, and get information they need to troubleshoot. Simply put, everything rests on your logs.

Sign up for a fully-featured 14-day trial and optimize your logging workflow or reach out to our sales team to create a plan tailored to your needs at outreach@mezmo.com today.
Thank You

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