sumo logic

CASE STUDY

"We're deploying Kubernetes to give us the option of selecting the optimal blend of cloud vendors to precisely meet our needs. This would be impossible without Sumo Logic's cloud-neutrality."

Jeremy Proffitt
Staff Site Reliability Engineer

lendingtree®

Challenge

LendingTree is keenly focused on maintaining high uptime levels by minimizing outages, disruptions, and other unplanned events. This provides better service to its more than eight million customers while curtailing revenue-sapping interruptions. The company also continually seeks new avenues for innovation and cost savings, with the Kubernetes project serving as one notable example. By spreading cloud computing workloads across platforms from multiple vendors, Kubernetes had the potential to significantly boost reliability. However, LendingTree needed to find a unified approach for understanding the state of their distributed environment, becoming aware of issues regardless of their origin, and then quickly resolving those problems.

Solution

The company had already adopted Sumo Logic's born-in-the-cloud offering as part of an earlier machine data aggregation initiative. The next phase of this undertaking entailed ingesting logs, metrics, and events produced by their newly-established Kubernetes implementation and then displaying relevant information within Sumo Logic.

Results

The initial Sumo Logic implementation — which entailed gathering, managing, and analyzing machine data throughout the LendingTree environment — had already delivered major financial benefits: the company was able to save millions of dollars each year simply by reducing the number and severity of service disruptions.

Adding Kubernetes to the mix has allowed all Kubernetes-related information to now be available from one consistent set of Sumo Logic dashboards that serve as an independent, single point of reference. It has also helped facilitate the strategic migration to a multi-cloud environment. This transition will enhance fault tolerance across LendingTree's entire cloud infrastructure, enabling alternatives from AWS, Microsoft Azure, Google Cloud Platform, and even bare metal servers. LendingTree can continue its quest to identify the most effective — and cost-effective — cloud computing vendors with the confidence that Kubernetes and Sumo Logic will seamlessly work with these new environments. LendingTree will also be in a more flexible and stronger negotiating position,

Company
LendingTree

Industry
Financial Services

Headquarters
Charlotte, North Carolina, USA

Size
900 employees

Use cases
Operations

LendingTree counts on Sumo Logic and Kubernetes to slash revenue-disrupting incidents while also attaining cloud vendor independence.

> **"Sumo Logic's support for Kubernetes gives us the freedom and flexibility to choose the best, most affordable cloud computing providers."**
>
> **Aric Renzo**
> Dev Ops Engineer II, LendingTree, Author of "Containerizing Ansible"

in part thanks to Sumo Logic's independence and ability to consume machine data from all these platforms yet showcase it in a consistent manner. The company expects that this will shave between 10 and 20 percent each year from its formidable cloud hosting expenditures.

Details

Since its creation more than 20 years ago, LendingTree has been appreciated by millions of its customers as a powerful and comprehensive search engine for money. The company's ongoing mission is to help consumers find the best financial deals — for loans such as personal, auto, and mortgage as well as other financial products — by providing a user-friendly service that makes it possible for banks to compete for their business. LendingTree interacts with prospective customers through extensive advertising and its highly specialized website. When a potential loan customer initiates an inquiry, the company orchestrates a sophisticated business process that presents the desired loan to a rich array of lender partners, each of whom then responds with candidate products. Once the consumer makes a selection, LendingTree then communicates relevant information about them to the lender.

Over the years, LendingTree has relentlessly sought fresh approaches for evolving and enhancing its entire technology portfolio. Today, most of the company's revenue-producing code operates within Docker containers that are hosted by Amazon Web Services (AWS) and run on AWS Elastic Container Service (ECS). LendingTree experiences massive transaction volumes each day: routine communication with lenders results in millions of API calls; internal API-to-API traffic generates tens of millions of additional calls.

With so many interactions, there are plenty of opportunities for issues to crop up. For a revenue-oriented organization like LendingTree, these disruptions can be devastating: a single production flaw during prime business hours can lead to $6,000 in lost revenues each minute. This means that the company is laser-focused on taking all possible steps to diminish such devastating events. One increasingly important strategy is spreading LendingTree's computationally-intensive workloads among multiple cloud providers. Along with reducing downtime, this strategically important undertaking will help the company identify the most reliable vendors, reduce cost, and encourage innovation. Naturally, distributing heavy work volumes among multiple cloud platforms introduces its own set of hazards and responsibilities. In response, these are being tackled by specialized applications designed to manage and orchestrate containers and the cloud environments in which they run. Thanks to its well-designed functionality and ease-of-use, the Kubernetes solution has become the most popular example of this type of system. Leading cloud computing vendors - including Amazon, Microsoft, and Google - offer a managed Kubernetes service, and container-oriented technologies such as Docker, Rancher, Mesos, and Pivotal all smoothly work with it as well.

LendingTree's technical leadership recognized that Kubernetes could give the company far greater control over its containers, making it feasible to logically merge heterogeneous servers from numerous Hardware as a Service (HaaS) vendors. The resulting software-defined network would mitigate risk by heightening fault tolerance across data centers, providers, and geographic locations. Unfortunately, having identified Kubernetes as a critical ingredient in its drive towards a containerized, multi-cloud vendor architecture, LendingTree also determined that legacy performance management tools weren't up to the job of working with these diverse environments. Originally designed for server monitoring, these applications didn't provide enough capabilities for administrators to oversee modern Kubernetes deployments. This would make troubleshooting and problem resolution much harder, thereby damaging the customer experience and negatively impacting revenue.

LendingTree had already tapped Sumo Logic as its new solution for addressing shortfalls in log aggregation and analytics. Once the initial deployment was complete, the company identified numerous new opportunities to profit from its Sumo Logic investment. Diverse teams — such as software development, marketing, and Site Reliability Engineering (SRE) — set up their own widely visible 50" screens to display real-time production status, meaningful alerts, and actionable analytics using customized Sumo Logic dashboards. Meanwhile, Sumo Logic had been vastly expanding its capabilities for working with Kubernetes, offering a single platform and a specialized collection of supporting apps for monitoring, troubleshooting, and securing these types of implementation. After considering these new product competencies, LendingTree's technical team decided to expand its Sumo Logic utilization to cover its Kubernetes needs as well.

LendingTree began ingesting its Kubernetes machine data and displaying monitoring and alerting information via a 'single pane of glass'. The company's machine data-related methodologies, queries, and interpretation remained consistent, regardless of the underlying HaaS environment. This meant that LendingTree could count on the tandem of Sumo Logic and Kubernetes to carry out each of the following vital responsibilities:

- **Discoverability.** Sumo Logic supplies a user-friendly navigable dashboard hierarchy that's built on the Kubernetes mental model and offers views from both the service-centric and infrastructure-centric perspectives.

- **Observability.** LendingTree's technical team can review logs, metrics, and events across the entire Kubernetes stack, including hardware (e.g. nodes, clusters, and volumes) and software (e.g. containers, pods, and deployments). Service-centric visibility is much more tightly connected to what the customer sees and makes it easier to find and correct issues whether they're caused by Continuous Integration/Continuous Delivery (CI/CD), DevOps, or SecOps flaws.

- **Security.** Sumo Logic furnishes end-to-end threat visibility throughout the complete Kubernetes environment, from containers to applications, and across the full DevSecOps lifecycle. It also offers out-of-the-box apps purposely designed for technologies found in the Kubernetes security ecosystem.

> **"We really appreciate that Sumo Logic's strong Kubernetes support lets us work with the same dashboards, alerts, and analytics no matter which cloud environments are in use."**
>
> **Jeremy Proffitt**
> Staff Site Reliability Engineer

Sumo Logic's wide-ranging effects at LendingTree are a textbook example of how a customer will initially deploy the product to address a specific challenge, and then unearth many other compelling use cases. This is no accident: Sumo Logic offers extensive, easy-to-use features that are backed up by solid quality and attentive technical support. This has fostered LendingTree's trust and confidence as the company continues to find new ways to profit from the torrents of machine data created every day, while continuing on its journey towards a more diversified hybrid cloud environment.

About LendingTree

LendingTree (NASDAQ: TREE) is the nation's leading online marketplace that connects consumers with the choices they need to be confident in their financial decisions. LendingTree empowers consumers to shop for financial services the same way they would shop for airline tickets or hotel stays, comparing multiple offers from a nationwide network of over 500 partners in one simple search, and can choose the option that best fits their financial needs. Services include mortgage loans, mortgage refinances, auto loans, personal loans, business loans, student refinances, credit cards and more. Through the My LendingTree platform, consumers receive free credit scores, credit monitoring and recommendations to improve credit health. My LendingTree proactively compares consumers' credit accounts against offers on our network, and notifies consumers when there is an opportunity to save money. In short, LendingTree's purpose is to help simplify financial decisions for life's meaningful moments through choice, education and support. LendingTree, LLC is a subsidiary of LendingTree, Inc. For more information, go to www.lendingtree.com, dial 800-555-TREE, like our Facebook page and or follow us on Twitter @LendingTree.

About Sumo Logic

Sumo Logic is a secure, cloud-native, Continuous Intelligence Platform for DevSecOps delivering real-time, continuous intelligence from structured, semi-structured and unstructured data across the entire application lifecycle and stack. More than 2,000 customers around the globe rely on Sumo Logic for the intelligence to build, run and secure their modern applications and cloud infrastructures. Only Sumo Logic delivers its platform based on a true, multi-tenant, SaaS architecture, enabling digital businesses to thrive in the Intelligence Economy. Founded in 2010, Sumo Logic is a privately held company based in Redwood City, Calif. and is backed by Accel Partners, Battery Ventures, DFJ Growth, Franklin Templeton, Greylock Partners, IVP, Sapphire Ventures, Sequoia Capital, Sutter Hill Ventures and Tiger Global Management. For more information, visit www.sumologic.com.

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