Cloud migration at scale

Results at a glance

→ Supported rapid e-commerce growth to $2B in revenue

→ Full-stack observability to support cloud migration

→ Increased efficiency in identifying risks to application security and reliability

→ Maximized digital customer experience

→ Optimized incident response, averting significant potential losses

ULTA®
BEAUTY

ENVIRONMENT
Google Cloud

SUMO LOGIC PRODUCTS
Application Observability
Infrastructure monitoring
Audit and Compliance

USE CASE
Cloud migration
Digital customer experience
Modernizing security operations

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Challenge

Ulta Beauty's e-commerce channel grew from $200 million to over $2 billion. As their digital channels grew exponentially, so did their digital challenges.

Exponential traffic spikes during holiday seasons meant building extra infrastructure for coverage in their on-premises environment and being overprovisioned for normal traffic the rest of the year. With this setup, the customer experience was compromised because of the difficulty of making changes — rollout times were very slow, contrasted with the need for rapid customization to improve customer experience (CX). Changing a single line of code meant having to deploy their whole stack.

To address these issues, Ulta Beauty decided to migrate to the cloud and take a microservices, API-first approach. They chose Google Cloud Platform (GCP) as their cloud provider. Ulta Beauty took the "Stangler pattern" approach to their application migration, where they moved parts of their monolith to the cloud one microservice at a time, with load-balancing to ensure traffic and requests flowed correctly between the on-prem systems and the new GCP stack.

Running two systems during their migration journey, Ulta Beauty needed an observability solution to monitor the reliability and security of their new stack while ensuring business and application performance to avoid any revenue drop-offs. Ulta Beauty's engineers knew they needed the right vendors to help them through the massive shift. Ideally, these strategic partners would ensure their team adopted the best practices and established the correct patterns as they modernized workflows while staying on track with their revenue goals.

INDUSTRY
Retail

ABOUT
Established in 1990, Ulta Beauty is the largest beauty retailer in the US today, with the mission to bring All Things Beauty, All in One Place®. Alongside their digital channels, Ulta Beauty operates 1300 stores across the United States, specializing in cosmetics, fragrance, skincare and hair care products.

Solution

Ulta Beauty's engineers chose Sumo Logic as their strategic partner for full-stack observability. Sumo Logic's cloud-native SaaS analytics platform provides comprehensive visibility into their systems and actionable real-time insights tailored to their business goals.

With the ability to scale as they migrate servers to GCP, Sumo Logic provides Ulta Beauty with the needed monitoring features to ensure the reliability and security of their stack, as well as provide robust dashboarding to monitor business and application performance. The Ulta Beauty team can now focus on application delivery, freed from infrastructure maintenance.

Results

Protecting revenue while migrating to the cloud is top of mind for Ulta Beauty — issues must be identified and addressed quickly. Sumo Logic's robust data visualization features allow Ulta Beauty to create dashboards that provide a comprehensive view of various aspects of their business. With Sumo Logic's out-of-the-box dashboarding capabilities, Ulta Beauty's e-commerce and digital systems team and other stakeholders in the company can better visualize data and quickly identify operational, reliability and security issues.

" Take time to move and work with the vendors that you trust to help you find a solution to solve the day-to-day problems. We've done that a lot and Sumo can tell you how often they come in and get into GCP with us, looking at ways for us to better monitor our GKE stack."

ULTA BEAUTY **Omar Koncobo**
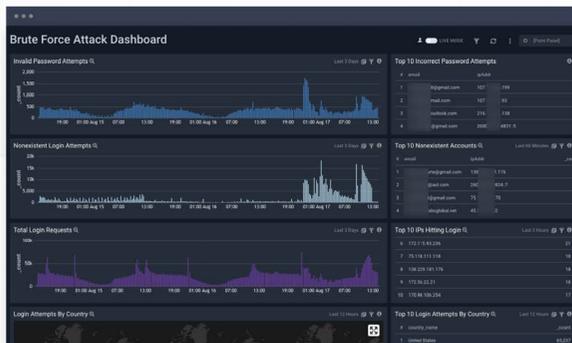IT Director for E-commerce and Digital Systems

Fast identification of operational, reliability and security issues

Ulta Beauty has solid benchmarking for business metrics thanks to years of data as the top beauty retailer. While they have dashboards dedicated to monitoring their Google Kubernetes Engine (GKE) stack, network components, and other under-the-hood system metrics, watching business numbers allows them to monitor different aspects of their operations, effectively the end-to-end user experience. These numbers also inform the IT team of potential infrastructure problems thanks to the predictability of their metrics based on historical performance.

Monitoring GKE reliability and operational issues

One of several dashboards tracking order flow and volume analytics, the Order Insight I dashboard is instrumental in monitoring system reliability and end-to-end operational issues. An increase in the number of canceled orders may indicate problems on the front end of their digital channels or an inventory issue on the warehouse side. Monitoring the number of orders per channel and per time period also gives them insight into the reliability and stability of their stack, as well as potential issues when there are notable deviations from their benchmarked numbers.
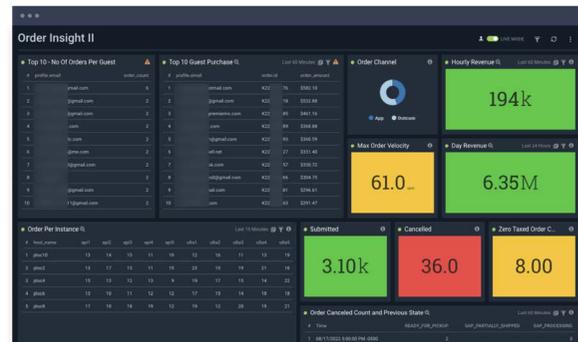

Monitoring security

Ulta Beauty's pages generate massive amounts of traffic and data, making them a target for many bad actors. Security is top of mind for the IT team to protect their customers and revenue streams. Due to the sheer amount of data and interactions hosted on their sites, identifying bad actors is done through tracking website activities that could indicate attacks and fraudulent activities.

For example, Ulta Beauty's Brute Force Attack dashboard tracks indicators like invalid password attempts and login attempts per IP address and per country.

Monitoring business and application performance

Ulta Beauty's leadership pays special attention to this Order Insight dashboard to monitor campaign performance. Orders per minute are tracked based on time periods and channel sources for the orders—whether they're from the app, the website or other channels. During the holiday season, when orders are peaking, watching the Add to Bag graphs preceding the release of sale prices and other campaigns provides insight into the performance of promotions. More importantly, actionable insights from this dashboard allow the IT team to best prepare their systems for incoming traffic and user activities, especially on red-letter days.
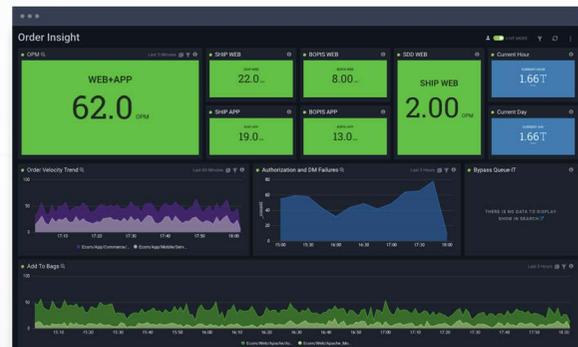
Alerting and automated incident response

Ulta Beauty's dashboards serve as beacons for business-wide monitoring and issue identification, working in concert with fine-tuned alerting and open communication across departments. With set bench-mark-informed thresholds, Ulta Beauty has established business-critical alerts that work alongside automated incident responses programmed within Sumo Logic. This allows the Ulta Beauty team to reduce response times, optimize the use of engineering hours and prevent revenue losses.

A website issue resulted in all products being listed as free, causing the number of shipping-only orders to skyrocket, as demonstrated by the Average Order Value registering at around $5 on the dashboard instead of the typical $60. This triggered an automated response that stopped the flow of orders from the digital channels to the warehouse, which could have resulted in significant losses if erroneous orders were processed and shipped out.

Time for a makeover: Ulta Beauty shares its story of cloud migration

WATCH THE FULL SESSION

Looking ahead

As Ulta Beauty continues to move from their legacy stack to GCP, the team is focused on further optimizing processes, forging strategic vendor partnerships and making decisions aligned with their overarching aim of positively contributing to Ulta Beauty's revenue goals. One such move is partnering with Akamai to save on their data egress costs, especially in the interim, as they route traffic from both their on-prem and cloud environments.

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