Yelp Standardizes on Splunk Enterprise; Democratizes its Data to Ensure Great Customer Experience

Executive summary

Yelp connects millions of people with local businesses through its website and mobile app. To ensure a great customer experience the company has standardized on the Splunk Enterprise data analytics platform, enabling hundreds of technical and non-technical users—from site reliability engineers to product managers—to gain actionable business insights. Since deploying Splunk Enterprise, Yelp has seen benefits including:

- Improving website uptime with real-time notifications
- Quickly and reliably delivering application features to users
- Uncovering business insights and improving the customer experience
- Saving engineering hours by liberating the data for all users

Why Splunk

Kris Wehner, vice president of engineering, Yelp Reservations, runs the company's services related to restaurant reservations, including restaurant and diner-facing technology. According to Wehner, a primary challenge at Yelp prior to adopting Splunk Enterprise was that log data was nearly inaccessible to non-engineering staff, and even the engineers found it difficult to access. There was never enough engineering bandwidth to provide numbers and data to everyone who needed it to make business decisions, and getting accurate answers sometimes took weeks.

The company had experimented with different tools to manage its data including Elasticsearch as part of its open source strategy. "That effort stalled due to scale issues," Wehner says. "We were having lots of problems pushing 10-plus terabytes of data per day into Elasticsearch clusters and having it remain stable. We'd have partial data availability, which made it really hard to rely upon as a single source of truth."

When Wehner joined Yelp through an acquisition a few years ago he and his team introduced Splunk Enterprise to the engineering, product and business organizations. Next, the company moved forward with a proof of concept (POC) to show how the software could help Yelp succeed at a larger scale. "The Splunk POC demonstrated its capability to notify engineers if there was anything going on with the website in real time, which wasn't possible before," Wehner says. From there, the team deployed Splunk Enterprise in a matter of days and gained fast time to value.

Industry
- Technology

Splunk Use Cases
- IT operations
- Application delivery
- Business analytics

Challenges
- Difficulty accessing and managing data across the enterprise
- Open source platform lacked stability and scalability needed to accommodate large and growing data volume
- Accessing data to make actionable decisions took up to weeks
- Developers lacked infrastructure visibility needed to ensure smooth application delivery

Business Impact
- Deployed in days and gained fast time to value
- Improving website uptime with real-time notifications
- Enhancing customer experience with real-time business insights
- Reducing business analytics from up to weeks to real time
- Quickly and reliably delivering application features to users
- Democratizing data access for technical and non-technical users

Data Sources
- Application
- Database
- Third-party

Splunk Products
- Splunk Enterprise
- Splunk App for Unix and Linux
- Splunk Machine Learning Toolkit
- Splunk App for AWS

Unified data accessible and actionable across the enterprise

Over the past two years, Yelp has transitioned to a cloud-based IT infrastructure built entirely on Amazon Web Services (AWS). The company also relies on Amazon Redshift. To take full advantage of AWS and the open Splunk platform, the company has been able to write extensions and bring Redshift data into Splunk to correlate it with other data sources.

Today, Yelp funnels all of its 10-plus terabytes of log data per day into the Splunk platform. "We take actionable insight on multiple data sets including application, database and third-party data all together in the same interface and then provide visualizations that are actionable and available to business users with a minimal level of engineering investment," Wehner says.

While the use of Splunk Enterprise began as an engineering phenomenon at Yelp, it quickly grew to serve the product management team and then further into other areas including business operations. According to Wehner, time to data availability for the product and business operations teams has been extremely short. Democratized data enables users to do much for themselves. "It was easy for our non-technical teams to implement Splunk Enterprise because once the reports were created and visualizations were clean and beautiful, we didn't have to do any training when we rolled it out," Wehner says. "We just explained the visualizations that the users were being presented with and they were up and running."

Splunk Enterprise also has improved how Yelp develops and deploys new applications. For instance, developers get direct insight into code running in production. They monitor the server fleet in real time to make sure deployments are smooth and bug-free. This ensures developers can deliver features to users as quickly and reliably as possible.

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Kris Wehner, Vice President of Engineering
Yelp Reservations

Addressing real-time business needs

One of the early teams outside of core engineering that began using Splunk Enterprise was the platform delivery team that handles food orders. The food ordering mechanism currently uses Splunk Enterprise to track whether or not people are receiving deliveries. Yelp has dashboards to track the delivery order pipeline, which alerts the operational team in the event of exceptions and ensures customers receive their orders.

According to Wehner, the real-time nature of Splunk Enterprise is extremely important to address the needs of the business. The ability to take real-time action on food delivery orders to ensure customers get orders on time is a key component of customer satisfaction. "With Splunk Enterprise, we're making wait times as short as possible," Wehner concludes. "I don't believe there is any other product on the market that is able to quickly bring together diverse data sets, offer a powerful language to engineers for data analysis and then ultimately deliver beautiful, visual, actionable reports to the business users."

Download Splunk for free or get started with the free cloud trial. Whether cloud, on-premises, or for large or small teams, Splunk has a deployment model that will fit your needs.