

BJ's bulks up their data with Scalyr's Event Data Cloud

CASE STUDY



ABOUT BJ'S WHOLESALE CLUB

BJ's Wholesale Club is a leading warehouse club operator in the East the United States. BJ's delivers significant value to its members, consistently offering up to 25% savings on a representative basket of manufacturer-branded groceries compared to traditional supermarket competitors. As of spring 2021, BJ's operates 221 BJ's clubs and 151 BJ's gas stations in 17 states and employs approximately 30,000 team members. BJ's digital team is responsible for [bjs.com](https://www.bjs.com), an increasingly strategic part of the business as more consumer activity shifts online.

OBSERVABILITY CHALLENGES

For an e-commerce site like BJ's, down time translates into lost sales, so investing in a reliable and effective observability solution is critical for minimizing outages. In 2019, BJ's relied on a self-managed ELK stack (Elasticsearch-Logstash-Kibana) to monitor their applications and infrastructure. At that time, the site produced roughly 70GB of observability data per day. At this scale, they were already running into the limits of their ELK stack. Performance degraded as the scale increased, and ELK would frequently go down during peak seasons. Making minor changes to the system often required work on multiple layers of the stack.

ELK is open-source and carries no license cost, but the engineering hours required to build and maintain this "free" software were exponentially increasing as the system grew. Elastic often introduces breaking changes with major version releases, requiring the investment of additional engineering time for the team to keep up to date. Certain key features like alerting are available only with a paid license. BJ's was continuing to expand their web properties and with customer demand growing as well, it became clear that ELK was no longer meeting their needs.

WHY BJ'S CHOSE SCALYR

Scalyr offered an attractive combination of performance, scalability, and competitive pricing. Moving to a managed solution meant that BJ's engineering resources previously focused on maintaining the ELK stack could be deployed on more strategic projects. BJ's was confident in Scalyr's ability to scale as their log volume grew, allowing them to focus on other aspects of their growing business. Critical Kibana dashboards were recreated in Scalyr and were enhanced by alerting. With minimal training, BJ's engineers were able to leverage Scalyr for visibility into the performance of their infrastructure and web applications.

CUSTOMER:**CHALLENGE:**

Needed to replace a self-managed ELK stack which was becoming increasingly difficult and expensive to maintain as the company's digital division scaled. Wanted to migrate existing Kibana dashboards and supplement them with alerting.

RESULTS:

- In-house engineering resources who had been dedicated to maintaining ELK could be re-allocated to more strategic initiatives.
- Incident resolution time decreased as a result of Scalyr's faster performance and the implementation of alerting.
- Scalyr has continued to perform seamlessly, through both continued organic growth as well as unexpected spikes in traffic.

ABOUT SCALYR

Scalyr provides an event data cloud for log management and observability, and to power analytics for other services. Scalyr delivers 96% of searches in less than one second so engineers and SREs can work at the speed of thought and transform logs from afterthought into advantage.

MIGRATING FROM ELK TO SCALYR

BJ's initially ran Scalyr in parallel with ELK, and the contrast in speed was dramatic. With Scalyr, 96% of queries returned in less than a second, orders of magnitude faster than their ELK stack. Powerful alerting, combined with the ability to troubleshoot and triage faster, led to significantly diminished incident response time. This resulted in "issue triaging becoming instant after moving to Scalyr, as compared to 1 hour average on ELK."

BJ's produces many TBs of data per month during normal operations. On Black Friday, they noticed up to 700% of their initial daily average. Scalyr accommodated this increased volume without a hitch, continuing to deliver rapid ingest, alerting and search performance. With so much volatility during this time, the BJ's team appreciated Scalyr's stability and reliability.



"The thing that I like about Scalyr is the unbelievable speed. I can give a PowerQuery a complex regex and somehow I get my answer quickly"

Ravish Jain

Observability Engineer,

BJ's