Executive summary

With a global presence in more than 30 countries and territories, TransUnion helps businesses manage risk while also helping consumers manage their credit, personal information and identity. Behind the scenes, the company promotes reliable consumer transactions by consistently ensuring the stability of TransUnion’s information technology systems. Since adopting Splunk Enterprise, Splunk IT Service Intelligence (ITSI) and the Splunk Machine Learning Toolkit for enterprise IT monitoring and machine learning-powered analytics, TransUnion has seen the following benefits:

• Help meeting customer SLAs
• Quick discovery of incident root causes
• Reduction in number of false alerts
• Increased customer satisfaction

Why Splunk

TransUnion provides consumer reports, risk scores, analytical services and more for over one billion consumers and business customers, including Tier-One financial institutions. Edward Bailey, senior monitoring and operations architect at TransUnion, works with a team of Splunk and other TransUnion engineers, who comprise the enterprise monitoring department. He says, “We use Splunk for a wide variety of use cases from alerting to root cause analysis, reporting, audit and security. Nothing else on the market provides the ability to query such massive amounts of data and quickly pinpoint complex technical issues.”

Bailey’s team looked for ways to improve performance monitoring for external customer traffic and customer volume transactions. Upon discovering Splunk, “We were excited to utilize machine learning to establish our customer activity baseline and help with performance monitoring of our applications,” says Bailey. He brought in Steve Koelpin, lead Splunk developer at TransUnion, and took advantage of the Splunk Machine Learning Advisory Program, which helps customers solve business challenges using Splunk’s Machine Learning Toolkit.
Faster issue resolution

TransUnion experiences variable traffic cycles on its website, with higher transaction volumes at certain times of the day and week. With automation and machine learning algorithms in place, the company has a new way to monitor these traffic cycles and transactions.

TransUnion is using Splunk ITSI to visualize and combine machine data from multiple applications to create an end-to-end transaction flow not available in commercial APM solutions. “With Splunk ITSI we have a new way to visualize the health of each app,” Bailey says. “It helps us speed up root cause determination to achieve faster resolution.”

Machine learning for better customer service

TransUnion analysts recently looked to Splunk dashboards when troubleshooting traffic for a large banking customer. With accrued knowledge of expected traffic at specific times of day, traffic that fell outside that data was considered an anomaly and generated an alert.

“Understanding customer volume patterns is important for the business. If traffic falls outside of a certain range, an alert is created,” Koelpin says, adding, “Splunk machine learning allows us to investigate early to ensure a seamless customer experience.”

Looking ahead

TransUnion’s enterprise monitoring department will soon use accelerated data models to populate summary indexes to increase speed further. Plans are underway to make machine learning faster and more accurate. “Our ultimate goal is to reduce search times to seconds with the accelerated data model,” Bailey concludes. “We also want to expand the training dataset to enable more accurate machine learning.”

“With Splunk ITSI, we have a way to visualize application flow and health from service to service. ITSI helps us speed root cause determination and resolve issues as fast as possible.”

Edward Bailey, Senior Monitoring and Operations Architect
TransUnion

“Understanding customer volume patterns is important for the business. If traffic falls outside of a certain range, an alert is created. Splunk machine learning allows us to investigate early to ensure a seamless customer experience.”

Steve Koelpin, Lead Splunk Developer
TransUnion

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