

Splunk® at CJ O Shopping

Real-time Data Analytics Improves Operational Efficiencies



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Jin-Hyuk Ahn

Managing Director for Smart IT
Business Division
CJ O Shopping

OVERVIEW

INDUSTRY

- Online & Mobile Shopping / e-Commerce

SPLUNK USE CASES

- Real-time data analytics
- Operational intelligence
- Marketing

BUSINESS IMPACT

- Improved operational efficiencies
- Integrated results from both web and mobile data sources
- ROI – cost savings of 50 percent over prior solution
- Time savings of 24 hours over previous weblogger data analysis solution
- Maximized marketing efforts from real-time insights into customer behavior
- Faster incident response times
- Reduced departmental silos
- Dev/Ops collaboration

DATA SOURCES

- Online shopping / e-Commerce web logs
- Online shopping / e-Commerce web application server logs
- Shopping TV CTR log
- Mobile service web application logs
- Mobile device local application logs
- Internal lookup databases (products, customers)

The Business

CJ O Shopping is a global home shopping operator with over 800 employees and \$2.4 billion dollars in annual sales. Founded in 1995, the company has since expanded its businesses to include TV (cable TV, satellite, IPTV), catalog, Internet and mobile. In particular, in the mobile and new media segment, it has become the first Korean home shopping company to launch apps for iPhones and Android-based smartphones. With a 50 percent share in the local mobile shopping market, CJ O Shopping is recognized as a leading online marketing & merchandising company at home and abroad. Its online shopping mall, the second-largest comprehensive shopping mall in Korea, offers a wide range of products by securing a variety of brands and leading department stores and provides superior shopping services to online customers.

Challenges

When it comes to online shopping, real-time data analysis is critical to successful sales. “We need to do real-time analysis on the ways customers click on product reviews to determine whether this behavior is leading to actual purchases,” said Jin-Hyuk Ahn, Managing Director for Smart IT Business Division at CJ O Shopping. “The speed and accuracy of this data analysis affects orders in real time.”

Prior to Splunk, CJ O Shopping relied on a data warehouse solution along with a system that analyzed weblogger data. However, since the data warehouse system did not have a real-time analysis capability, CJ O Shopping was only able to get the data it wanted the next day. Inability to get real-time data was a big setback to a company in the online shopping business where one second could make the difference between a sale and an abandoned shopping cart. In addition, as there is growing trend in the use of mobile devices, getting information in real time became a new challenge for CJ O Shopping. Although the weblogger system provided the company with access to information regarding its web-based online shopping, the system was not designed to mesh with the new mobile platform.

Enter Splunk

Upon launching its mobile business, CJ O Shopping set up its e-Commerce Development Team in spring, 2012, to better adapt to changes in the e-Commerce market environment. Discussion on the trend analysis of real-time traffic and customer log-in status became widespread across the company, triggering interest in big data and cementing the need for a comprehensive solution that could efficiently analyze all of the company’s disparate data sources in real time. This resulted in the deployment of Splunk in April, 2013.

Breakthroughs

Fifty percent cost reduction & a full day of time savings over previous solution

Mr. Ahn noted, “With things increasingly going mobile, real-time data collection had become a huge challenge for us. The analysis system for weblogger only allowed us to see simple things like the number of banner clicks and also took a lot of time. So, it was not a good candidate to be deployed on the mobile platform. At the end of

the day, we were able to overcome the limitations of the previous systems through deploying Splunk software.” Chul-Hyun Cho, Team Manager for e-Commerce Development at CJ O Shopping, added, “We are now able to collect unstructured data, something that was not possible previously. We also can collect this data on-the-fly, another impossibility if we had continued to rely on trend analysis via the previous system.”

Mr. Cho continued, “With the adoption of Splunk, we were able to reduce our costs by 50 percent and save up to 24 hours on log data analysis compared to what we spent with the weblogger analysis system. This was a huge time and cost savings that has been of tremendous value in our online shopping business.”

Real-time data analysis utilized for strategic promotions and social networking

CJ O Shopping is collecting and analyzing data in Splunk software to use for strategic promotions. According to Mr. Ahn, “We offer a real-time video streaming service via the Internet. Using Splunk, we are now able to extract real-time data for the customers who watch the preview but decide not to purchase the content. We offer targeted promotions to those particular customers that have proved to be much more effective than random promotions.”

Splunk software’s ability to collect real-time data is also applied to some social networking services at CJ O Shopping. Customers checking specific products in real time on O’ Clock, CJ O Shopping’s social commerce site, can see how many other people are interested in the items, which can boost interest and item desirability.

Operational Intelligence across the organization

Before deploying Splunk, the IT Department was in charge of extracting data at CJ O Shopping. Since the deployment, the Operations Department can also easily access and analyze data. As a result, response times have gotten much faster when a new requirement emerges, because Operations can quickly process data statistics and engage in analysis without needing to rely on IT.

Mr. Ahn said, “The real-time analysis function of Splunk software makes it a very valuable solution in a mobile society. Regardless of the size of the data, Splunk enables our company to make informed decisions on what to do next.”

Company-wide discussion is underway as to how to incorporate Splunk into a wide-range of services at CJ O Shopping, including deployment on its overseas site. “Splunk is a solution that offers users the opportunity to create a system in the way they envision. One of its key strengths is good accessibility so we are trying to apply it to many more services,” said Mr. Cho.

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