

Tesco.com Accelerates Development Through Deep Understanding of Customer Behavior



Executive summary

Tesco.com is the e-commerce arm of Tesco PLC, a British grocery and general merchandise retailer that operates in the United Kingdom, Europe, Asia and North America. Introduced in 2000, Tesco.com serves the UK market with grocery, general merchandise, clothing, as well as banking and insurance services. Tesco developers and business analysts needed a better understanding of what products and website features customers used and which pathways resulted in the highest lead conversions. Since deploying Splunk Enterprise, the company has seen benefits including:

- Improved customer satisfaction
- Reduced revenue loss
- Accelerated development cycle and enhanced cross-team collaboration

Why Splunk

Traditionally a Microsoft shop, Tesco had transitioned to a Linux and Java platform for the next generation of its direct General Merchandising Online (GMO) website. Supporting both infrastructures led to a large and complex development and production mix, including more than 400 servers across 10 environments in the UK and in India. This made it challenging to monitor processes and troubleshoot development and production problems. Tesco relied primarily on custom scripts to capture log data and make it available to developers and IT support teams. The influx of new systems and the need to support multiple groups overwhelmed the company's homegrown log monitoring solution.

"Once we started rolling out the Splunk platform and looking at some of the information we could extract, it opened up our world—like putting on glasses for the first time," says Tesco applications engineer Joshua Anderson. Since then, Tesco has deployed the Splunk solution across nearly all of its servers. More than 300 developers, business/web analysts and others access Splunk software. The organization uses Splunk Enterprise to troubleshoot problems, identify drivers for improving user behavior and accelerate the development cycle.

Industry

- Retail

Splunk Use Cases

- Application delivery
- Business analytics

Challenges

- Insufficient visibility into complex development and production environments
- Homegrown log monitoring solution lacked scalability
- Required faster troubleshooting and development cycles to meet growing needs of website consumers
- Needed to increase understanding of customer behavior, including which pathways resulted in highest lead conversion

Business Impact

- Improved customer satisfaction
- Real-time insights into live transactions reduced MTTI/MTTR by 95 percent
- Escalations decreased by at least 50 percent
- Weekly troubleshooting and service/support time reduced by 30+ hours
- Operational visibility enabled across complex environments and multiple geographies
- Accelerated Java and .NET application development cycles by up to 30 percent
- Improved developer productivity

Data Sources

- System logs: Linux/UNIX, Windows, Mac OS X
- Application logs: JMS, JBoss, web events, error logs, stack traces from .NET and J2EE, Direct GMO
- Web logs: IIS
- Development and test logs
- Logs from 400 servers and 10 environments
- More than 50 unique log source types

Splunk Products

- Splunk Enterprise

Performance monitoring and troubleshooting improve customer experience

One of the earliest revelations for Tesco was how easy it was to use Splunk software to correlate log data into events that reveal root causes. “Early on, we were having trouble with checkout flow on the website,” recalls Anderson. “I remember just typing in ‘error’ and ‘payment’ in Splunk and all of a sudden we were able to narrow directly down to timeframes and see that there was a problem with our connectivity and the IP address.”

The Tesco application support team used Splunk Enterprise to quickly clear the error backlog and establish alerts and dashboards to speed future problem identification and resolution. To track customer activity, the team created Splunk dashboards that identified and resolved website error trends before they could become widespread problems. As a result, Tesco dramatically improved the website visitor experience and reduced the incidence of lost revenue due to abandoned shopping carts.

Application visibility and development acceleration

With millions of Tesco.com weekly visits, application process visibility is critical for order tracking accuracy, real-time alerts and site performance. Splunk software monitors Java-based messaging queues and bridges the gap between Java/Linux systems and Windows. Splunk alerts integrate with Tesco’s Microsoft SCOM monitoring and service desk systems so that the team can gauge the impact of site errors on customers and resolve any issues before they can have an adverse effect on sales or service.

“By standardizing and consolidating with Splunk Enterprise, we are assisting areas such as grocery, direct and international businesses in all our regions in mapping process flows and visually representing transactions in dashboards with associated alerts. We are already starting to see similar benefits to what we have experienced in application support and development at Tesco.com.”

Joshua Anderson, Applications Engineer
Tesco.com

Additionally, collaboration among geographically separated development teams—hundreds of Tesco engineering and test team members worldwide have access to test environment logs within Splunk software—has led to faster, more agile development and shorter development cycles. Tesco development teams are using the Splunk platform to triage application errors and cluster them into groups for analysis. By adopting a more agile development process, Tesco is cutting development time by about 30 percent.

Operational visibility and business insights

Due to the benefits Tesco has experienced in application support and development, the company has rolled out the Splunk platform to new areas within Tesco PLC, resulting in full operational visibility—necessary for understanding and optimizing website behavior in real time. By standardizing on Splunk Enterprise, Tesco is enhancing several areas of the business in all regions, by mapping process flows and visually representing transactions in dashboards with associated alerts.

[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.



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