Operational Visibility Enhances the Customer Experience at PagSeguro

Executive summary

PagSeguro is the leader in online payment solutions in the Brazilian market. The company also provides a variety of services for both buyers and sellers and allows users to shop securely online. PagSeguro lacked a flexible real-time monitoring solution and wanted full visibility into its production environment, especially in light of having to meet PCI compliance auditing requirements. Since deploying Splunk Enterprise, PagSeguro has seen benefits including:

- Better compliance to PCI security standards
- Increased customer satisfaction
- Full visibility into infrastructure

Why Splunk

PagSeguro is a Brazilian-based online payment business allowing payments and money transfers to be made over the web. The service was launched in July 2007 and is operated by Universo Online, the biggest Latin American Internet services provider. As a rapidly growing online business, PagSeguro requires a flexible real-time monitoring solution that can support performance and stability. Before Splunk, the tools PagSeguro was using couldn't be scaled and the monitoring and support teams had limited visibility into the production environment.

To proactively troubleshoot instability in its infrastructure and prevent impact to site operations, PagSeguro looked for a way to quickly identify the causes of incidents. In addition, in order to comply with PCI Security Council standards and address security and compliance auditing requirements, the company wanted to centralize infrastructure log management to a single location. After initially using Splunk software primarily for log event aggregation, PagSeguro expanded the use case to support a new payment gateway.

Industry
- Online services
- Technology

Splunk Use Cases
- Application delivery
- Security and PCI compliance
- Business analytics

Challenges
- Needed to meet PCI compliance auditing requirements
- Lacked a flexible real-time monitoring solution
- Previous monitoring solution was not scalable
- Limited visibility into production environment
- Required proactive troubleshooting

Business Impact
- Improved service availability
- Increased customer satisfaction
- Centralized, real-time visibility into infrastructure
- Faster validation of changes in production environment
- Better compliance to PCI security standards

Data Sources
- Linux Java applications (Syslog Log4j Appenders via UDP)
- JMS on JBoss
- Application and transaction logs
- Apache logs
- Third party logs from processing partners

Splunk Products
- Splunk Enterprise

CASE STUDY

Outages minimized, security posture improved

The architecture of PagSeguro's new payment gateway was designed to be fully Splunk-compliant, with all 60 physical Linux machines collecting data using Splunk Universal Forwarders. Operation teams also integrated all events from PagSeguro's in-house datacenter monitoring system with Splunk Enterprise, creating high-level dashboards of the production environment that have reduced incident resolution time and minimized outages. Most critically, PagSeguro has increased its security posture through the continuous monitoring and reporting for PCI compliance provided by Splunk Enterprise.

Operational efficiency leads to improved customer satisfaction

With all the operational data in one place, PagSeguro has been able to increase operational efficiency and gain immediate insight into mission-critical processes. Transaction tracking, once a difficult and complex process requiring monitoring over multiple components, has been made simple thanks to the Splunk platform. When Splunk dashboards revealed that a legacy component was leading to slower site performance, PagSeguro ended up changing its credit card gateway partner, resulting in improved service availability and increased customer satisfaction.

Growing use across the enterprise

In addition to the operations and development teams, Splunk software is also in use by the data analysis business team at PagSeguro. The data analysis team has built Splunk dashboards to highlight key business metrics such as transaction volume and average processing time, as well as to measure the performance of other third party systems and SLA compliance of its financial partners. The company has also begun to use Splunk software to determine the effectiveness and ROI of its marketing and advertising campaigns.

"We are getting a wealth of real-time information from our flexible Splunk dashboards."

Software Engineer
PagSeguro

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