CASE STUDY
99Bill Ensures Always-On Operations With End-to-End Visibility and Real-Time Insights

Executive summary
99Bill Corporation is China's leading Internet finance platform with 10 years of experience in electronic payment. Since Wanda Group’s strategic acquisition of 99Bill in 2014, the two companies have jointly developed an advanced Internet finance platform based on a business entity. However, with more than 1,000 disparate applications across a dispersed infrastructure, 99Bill needed a scalable troubleshooting and monitoring solution that could enhance its security and improve the customer experience. Since deploying Splunk Enterprise, 99Bill has seen benefits including:

• End-to-end visibility into business processes
• Accelerated troubleshooting and system recovery
• Enhanced cybersecurity and always-on operations

Why Splunk
Since its establishment in 2004, 99Bill has served more than 430 million personal users, partnered with more than five million merchants and worked with more than 100 financial institutions. Riding on its strength in data integration and combination of application scenarios, the company offers a comprehensive suite of electronic payment tools, reliable investment services, efficient credit financing solutions and a full array of applications to consumers and enterprises, enabling them to utilize convenient and intelligent Internet finance services anywhere, anytime. As China’s fastest growing Internet finance service provider—expected to run on a 24x7 basis—99Bill needed to proactively address service issues and system failures. Unfortunately, each test cycle took 50 seconds to complete and in most cases, a problem could only be identified after five test cycles. It also involved retrieval of multiple operation logs from 99Bill’s more than 1,000 applications. With the company processing over 4,000 financial transactions per minute, 99Bill could not afford any downtime. Additionally, passive anomaly detection made the network vulnerable to malware and hackers.

After learning about the Splunk solution via a promotional campaign, 99Bill tested Splunk Enterprise in an initial pilot program, then subsequently deployed the platform for its real-time big data analysis

Industry
• Financial services

Splunk Use Cases
• IT operations
• Security

Challenges
• Inefficient processes for data analysis
• Reactive operations monitoring
• Customer complaints due to slow responses and delayed troubleshooting

Business Impact
• Heightened customer satisfaction with problems detected proactively
• Enhanced operational safety due to active anomaly detection
• Facilitated business transactions with faster service failure recovery
• Always-on operations with problem root causes fixed at a rate of over 98 percent
• New marketing initiatives made possible by more reliable and efficient online operations

Data Sources
• Business transaction system
• Document management system
• Security management system logs

Splunk Products
• Splunk Enterprise

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and operation monitoring capabilities. The Splunk platform now provides system-wide, end-to-end operational visibility across 99Bill’s infrastructure, enabling 99Bill to monitor all applications and operations in a single view through intuitive graphical presentations.

**Improved security and system risk management through real-time operations monitoring**

Since deploying Splunk Enterprise for real-time operations monitoring, 99Bill can easily track system anomalies, analyze them and proactively mitigate them. In combination with its homegrown big data analysis system, the company has used the Splunk platform to improve its overall security posture and strengthen its approach to intrusion prevention. Problems such as transaction delays, system hang-ups or failed payment transfers can be detected easily in one to two seconds and even the most complicated troubleshooting task can be accomplished in two to three minutes’ time.

This proactive system monitoring enables 99Bill to discover root causes of system failures more effectively at a success rate of over 98 percent. This helps maintain a stable and “always-on” operation around the clock and ensures 99Bill’s service is available for users anytime and anywhere, greatly enhancing the overall customer experience.

**Frictionless business transactions achieved by faster failure recovery and reduced transaction errors**

Because of the effective system monitoring provided by Splunk Enterprise, failure recovery is now three times faster than before. Additionally, with the monitoring and online security provided by Splunk Enterprise, the transaction error rate has been reduced by 50 percent.

“The real-time operation analysis and monitoring provided by the Splunk platform enable us to track errors in seconds, recover operations in minutes and reduce system problems by half. We are getting true value for our money.”

Zhao Zhi Gang
Technical Director
99Bill Corporation

**Forging ahead with unprecedentedly innovative marketing programs**

Thanks to the Splunk solution, 99Bill has been able to enhance its online security and aggressively acquire new partners and users, all while boosting customer loyalty with new incentive programs. Specifically, the Splunk platform has provided 99Bill with the operational stability and reliability necessary to carry out new creative marketing initiatives. For instance, Wanda Group and 99Bill jointly introduced China’s first commercial property crowd funding app “Stable Earner No.1” in June 2015 and succeeded in raising their projected RMB5 billion in just three days, smashing a crowdfunding record in the industry. This could not have been achieved prior to the deployment of Splunk Enterprise.