

Splunk® at Crossroads Foundation

Operational Visibility Into Critical Systems to Reduce Costs



“Splunk provides out-of-the-box change monitoring support for Unix and Windows environments. I was able to create dashboards in a few minutes to provide real-time visibility of production system changes. Using Splunk, we are now able to meet PCI compliance and accept online credit cards for our Global Handcrafts fair trade store. Splunk provides a short, painless path to prove PCI compliance with little overhead.”

“Splunk helps us to go beyond reactive. We now use Splunk for some analytics. We want to correlate outside temperature from our sensors with the number of volunteers we get. By analyzing this data over time, we can predict how much food we'll need to provide to our volunteers based on expected temperature. This can help us optimize costs, since even one dollar can help save a life.”

Thomas Pike
IT Manager
Crossroads Foundation

OVERVIEW

INDUSTRY

- Non-profit charitable organization

SPLUNK USE CASES

- Operational intelligence
- IT network management
- Server and virtualization management
- Change management
- Security and PCI compliance
- Capacity planning
- Business analytics

About the Organization

Crossroads Foundation (<http://www.crossroads.org.hk>) is a Hong Kong-based non-profit organization founded in 1995, committed to linking those who are in need with those who can provide help. Each year in Hong Kong, Crossroads collects more than 160 20-foot containers' equivalent worth of goods ranging from medical equipment to toys and orphanage equipment to musical instruments, and distributes them where they are needed all over the globe.

Challenges

Virtually every aspect of the Crossroads Foundation's activities is supported in some way by IT infrastructure—from receiving phone calls from the community to donate valuable goods, to the server infrastructure supporting the Global Hand (<http://www.globalhand.org>) platform, to the e-Commerce applications that drive the Global Handcrafts fair-trade shop (<http://shop.globalhandcrafts.org>), to the considerable audio/visual infrastructure that provides added realism to the Global Village experiential activities (<http://www.crossroads.org.hk/lifex-perience/>). To carry out its work, the organization demands both a global logistics network and an IT infrastructure that requires a high level of efficiency and constant monitoring. But while the reach and impact of the Crossroads Foundation is expanding rapidly, the size of the Crossroads IT team is not. Currently, Crossroads has two full-time IT staff members, two developers and a number of part-time volunteers from the Hong Kong community. The organization needed a solution capable of scaling to its needs while maximizing the capacity of its core IT team.

Enter Splunk

Armed with a free Splunk software license donated by Splunk Inc., the Crossroads Foundation has been able to ensure consistency, security, efficiency and reliability of its systems, a critical part of fulfilling obligations to its partner organizations. With Splunk, Crossroads is able to manage IT support for Hong Kong, UK, Kazakhstan, Australia and France across virtually every aspect of its work, including its volunteer infrastructure and ability to receive online cash donations. By increasing reliability and management efficiency of the IT systems that underpin the organization, Splunk's best-in-class log aggregation, search and reporting platform has added value to the Crossroads Foundation's core mission and ultimately the people it serves.

Breakthroughs

Change Management

First-rate change management and monitoring of its diverse hosting environments is key to Crossroads' fulfillment of its obligations to partners such as the United Nations. The use of Splunk software's monitoring and alerting has considerably eased difficulties associated with change management at Crossroads. Its Global Hand platform now develops and operates hosted web applications for high-visibility organizations such as the United Nations free of charge (<http://business.un.org>). This service helps facilitate public/private partnerships in both disaster and development scenarios.

OVERVIEW (CONT.)

BUSINESS IMPACT

- Immediate visibility into critical systems, processes and changes made into production systems
- Provides a centralized logging and reporting mechanism across all aspects of operations
- Effective change management for both Unix-like and Windows environments “out-of-the-box”
- Fulfills PCI compliance, allowing online payments
- Monitors security posture of Cisco firewall applications
- Reduced operational costs
- Superior service to donors, recipients and partner organizations

DATA SOURCES

- Active Directory Forest, Windows Registries and Linux configuration files
- Logs from network devices
- Data from environmental sensors
- Application logs

APPLICATIONS

- Splunk App for PCI Compliance

Network Management

Companies such as Cisco, which have donated products to effectively re-implement Crossroads’ campus network, support Crossroads’ network infrastructure. Splunk has been a key factor in making this improvement project a success by providing a centralized logging and reporting mechanism that improves visibility across the 14 acre network infrastructure covering the Tuen Mun campus, comprising more than 20 separate buildings. Through real-time tracking of environmental sensors and the use of Splunk software’s alerting features, equipment problems caused by temperature fluctuations or water damage can be avoided, which has increased equipment life and reduced unnecessary expenditure.

Server and Virtualization Management

Crossroads has pushed a great deal of its critical infrastructure onto virtualized environments, which has brought its own set of challenges. While reaping the benefit of virtualization, Crossroads has ended up with more, not fewer, nodes and environments to manage. Splunk’s ability to aggregate and increase the visibility of Crossroads’ systems, both physical and virtual, has greatly reduced the manpower required to maintain these systems.

PCI Compliance

As a non-profit organization, Crossroads has a credit card payment system setup for donations. The payment card industry data security standards ensure the safe handling of cardholder information, with rigid rules for organizations accepting online credit card payments. Crossroads effectively monitors all credit transactions with the Splunk App for PCI Compliance.

Operational Visibility

The primary benefit of the implementation of Splunk software within the Crossroads environment has been increased visibility into systems and processes across both physical and virtual infrastructures. With Splunk, application faults, security issues and other errors can be identified and addressed in a prompt and timely fashion. Through the centralized collection of log data from network devices, Splunk now provides insight into the operations of the entire Crossroads network, allowing rapid fault identification and remediation. This has minimized disruptions to Crossroads’ operations. In addition, via historic tracking of both system and application resource usage, Splunk has helped Crossroads reduce operational costs by allowing for the optimal deployment of resources within the foundation’s limited budget .

Environmental and Social Impact

The Crossroads Foundation is committed to improving the lives of the poor, the needy and the disadvantaged through their four global services. The continued operation of Crossroads’ websites such as their Global Hand website empowers those partnering with the private sector and increases the opportunity for corporate groups to interact with non-profit groups for the provision of goods, human resources, freight and funding, and the development of long term public/private partnerships and standards of best practice. All of these services and websites rely heavily on IT infrastructure, which in turn relies on the strengths of Splunk for continued operation. Through the use of Splunk software, Crossroads is able to more effectively allocate IT resources, reducing both resource and staffing requirements for continued operations. These freed resources can then be redirected to the primary cause of the Crossroads Foundation—to help the needy both locally in Hong Kong and internationally.

Free Download

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