Student Job Search Enables Informed Decision-Making With Real-Time Visualizations

Executive summary

Established in 1982, Student Job Search Aotearoa Incorporated (SJS) is a not-for-profit, incorporated society, which is fully owned by student associations across New Zealand. SJS' core service is to connect employers with tertiary students looking for employment. With limited resources and a large volume of data generated across multiple systems, SJS needed a single-pane-of-glass view into its data through a simple and accessible solution. Since deploying Splunk Enterprise, the organization has seen benefits including:

- Substantial efficiency gains
- More informed decision-making
- Enhanced service reliability

Why Splunk

In 2014, SJS fielded a call every 1.7 minutes and placed a student in employment every five minutes, filling more than 28,000 job vacancies. Although its web and call center operations could handle this level of demand, the sheer volume of data generated by numerous disparate systems had placed the nonprofit's back office IT operations under strain, causing SJS particular pain when it came to reporting to its various stakeholders. In order to continue receiving funding from the Ministry of Social Development, SJS has to meet certain key performance indicators (KPIs) and report its monthly performance. This was a tedious manual process that took four working days and entailed consolidating information from various databases into a Microsoft Excel spreadsheet. Another two working days a month were spent manually preparing reports for various student associations.

SJS needed to streamline its reporting process, gain full visibility into its under-used data assets, and leverage these in proactive and value-generating ways. Splunk ended up being the perfect platform, with Splunk dashboards allowing anyone in the organization—with the right permissions—to drill down into the data. SJS installed Splunk Enterprise on a virtual server at the Amazon Web Services cloud datacenter in Sydney, enabling the organization to scale its Splunk deployment without the expense and operational overhead of a dedicated server.

Industry
- Nonprofit

Splunk Use Cases
- IT operations
- Business analytics
- Security

Challenges
- Large volume of data generated by multiple systems
- Limited resources and cumbersome manual reporting processes
- Need to comply with mandatory performance reporting
- Lack of visibility into data assets

Business Impact
- Substantial efficiency gains with 90 percent faster monthly reporting cycle
- More informed decision-making through data visualization and historical analytics
- Boosted marketing effectiveness with dynamic planning and execution
- Increased customer satisfaction due to rapid customer support case resolution and improved website navigation
- Service reliability enhanced by proactive security incident detection

Data Sources
- Apache web access logs
- Database logs
- Windows server logs
- Call center logs
- Employer and student registration data
- Job advertising and placement data
- Microsoft Excel stakeholder reporting files

Splunk Products
- Splunk Enterprise

Real-time performance management and rapid visual reporting

Since the Splunk deployment, SJS management has gained real-time operational visibility. Through Splunk dashboards in the form of graphics and hard figures that are automatically color coded with a traffic light system, SJS now has a better and faster understanding of performance details. It now takes only a few hours to complete the entire performance reporting cycle, rather than days.

In addition, the easy-to-use Splunk platform enables SJS to get immediate business value out of key applications. Even an inexperienced operator was able to create a new dashboard to support daily operations within an afternoon, which would have taken months to complete in the past and involved a lot of SQL coding. In fact, SJS is now using the Splunk platform to prototype website development.

Smart marketing and faster troubleshooting

The SJS marketing department is now able to leverage the Splunk platform for geo- visualized market intelligence to help devise promotional campaigns and monitor the impact in real time, enabling them to make adjustments to maximize success. In addition, having full visibility into their infrastructure has enabled the SJS customer support team to trace customers' issues with the website—while on the phone with the customer. Having instant access to the troubleshooting data has given site developers the tools necessary to fix the problems immediately.

Traffic monitoring and security analytics

Security is another key benefit for SJS. It is now able to track web and network traffic in real time, and easily compare it to historical data. For example, it can detect brute force attacks as they happen, by comparing password reset requests with successful resets (with a low correlation being indicative of an

> **"From the moment we installed Splunk Enterprise, I couldn't see how SJS could ever get by without it in the future. It has, genuinely, been a complete game-changer for us."**

Phil Tanner, Chief Technology Officer
Student Job Search

attempt to break the site's security). Using the GeoIP tools, SJS can also monitor and visualize incoming traffic sources, with connections from countries well known for hosting hackers standing out against the norm of traffic originating within New Zealand.

A data-driven future

Looking ahead, SJS plans to start adding additional external data into the Splunk platform. For example, weather data can be correlated with historical data on agricultural jobs to forecast demand in that sector, while data on New Zealand's frequent earthquakes should help map demand in the construction sector. SJS also sees an opportunity to pipe Splunk-generated insights to users of its website. A web development initiative is already underway to create a job recommendation system, similar to the way shoppers on Amazon are recommended other products, which will bring Splunk intelligence to bear in SJS' core mission of helping New Zealand's students find employment opportunities.

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.

splunk>   Learn more: www.splunk.com/asksales   www.splunk.com