

FamilySearch Moves to Continuous Delivery and Gains Real-Time Visibility for AWS Migration



Executive summary

Founded over 100 years ago, FamilySearch International is the largest genealogy organization in the world, hosting, maintaining and sharing genealogical records at FamilySearch.org and through over 4,600 family history centers in 132 countries. FamilySearch needed a way to move to a continuous delivery model, manage its all-in migration to Amazon Web Services (AWS) and immediately troubleshoot website errors. Since beginning its effort, the organization has seen benefits including:

- Successful migration from monthly releases to over 900 deploys per day
- Ability to re-allocate 12 developers to more value-added tasks
- Visibility into the AWS environment to support AWS migration strategy

Why Splunk

FamilySearch planned to move to a continuous delivery model on AWS to increase business agility and more rapidly deliver features to its patrons. To do so, the company needed a monitoring service that could immediately detect changes across its website properties following the push of a new release. This service needed to support the cultural change to a DevOps deployment model. To meet this need, FamilySearch chose Splunk Cloud to help analyze logs from all components of its IT environment in real time, without additional developer effort. Leveraging Splunk Cloud, FamilySearch is now able to identify errors in real time and has successfully moved to continuous delivery with over 900 deploys per day.

FamilySearch pushes all of its log data through Splunk Cloud, including data from load balancers, routers, APM tools and the applications themselves. Then, a JIRA ticket is automatically created for bug tracking policies following any error. FamilySearch now ingests 3.5-4TB of data per day into Splunk Cloud. The organization is able to give all developers access to all production data—without necessarily granting access to the application servers—enabling staff to build dashboards to monitor the health of the site following a release and move from code check-in to deploy in under 20 minutes.

Industry

- Online services
- Nonprofit

Splunk Use Cases

- Application delivery
 - DevOps
- Cloud solution
- IT operations management
- Log management
- Security

Challenges

- Wanted to increase update release frequency
- Needed to monitor and immediately detect changes to website to move to a DevOps model
- Issues with troubleshooting and keeping website stable

Business Impact

- Successful migration from monthly releases to 900 deploys per day
- Enabled developers to easily see whether or not components were healthy
- Moved to a DevOps model and achieved continuous delivery
- Gained back 12 developers who were previously focused on implementing releases and keeping website running

Data Sources

- Amazon EC2
- AWS Elastic Load Balancing (ELB)
- AWS CloudTrail
- Amazon CloudWatch
- AWS Billing
- Routers
- Applications
- On-premises servers

Splunk Products

- Splunk Cloud
- Splunk App for AWS
- Splunk Enterprise

By deploying Splunk Cloud, FamilySearch gains the inherent benefits of a cloud service: elasticity, security and scalability, without the operational effort.

Improving developer speed, efficiency

Splunk Cloud is critical to FamilySearch's shift to a DevOps model and enables developers to troubleshoot errors in real time. "Previously, we were doing monthly releases and struggling to get them built. Splunk Cloud has enabled us to see whether apps are running once we drop them into production—we now have immediate operational visibility whenever there's any deployment issue. Without Splunk Cloud, we wouldn't have been able to go to continuous delivery," says Gary Stokes, director of Engineering, FamilySearch.

FamilySearch now leverages Splunk Cloud in all stages of its Software Development Life Cycle (SDLC). After pushing to production, developers leverage Splunk Cloud to assess the health of a component. This allows FamilySearch developers to rapidly resolve detected issues and iterate new application releases.

After integrating Splunk Cloud into its workloads, FamilySearch was able to gain back 12 developers. With the easy-to learn, yet powerful, Splunk search processing language (SPL), FamilySearch developers have been able to easily create dashboards.

"Splunk Cloud has been more stable than our internal implementation and has freed up two resources to work on software development instead of managing infrastructure. It has clearly proven to be cost-effective compared to managing infrastructure ourselves."

Gary Stokes, Director of Engineering
FamilySearch

Expanding use of Splunk Solutions

FamilySearch is in the midst of migrating 100% of its applications to AWS. FamilySearch uses the Splunk App for AWS to gain real-time visibility into user operational and security-related activity in its AWS account allowing FamilySearch to migrate to AWS with full visibility. The Splunk App provides this visibility by analyzing all AWS CloudTrail, AWS CloudWatch, and AWS Billing data in Splunk Cloud. In the future, FamilySearch plans to expand its usage of Splunk solutions to gain business analytics on patron behavior as well as real-time AWS cost management.

"Splunk Cloud has enabled us to gain immediate operational visibility whenever we deploy code. Without Splunk Cloud, we wouldn't have been able to move to continuous delivery on AWS with over 900 deploys per day."

Gary Stokes, Director of Engineering
FamilySearch

About AWS: For 10 years, Amazon Web Services has been the world's most comprehensive and broadly adopted cloud platform. AWS offers over 70 fully featured services for compute, storage, databases, analytics, mobile, Internet of Things (IoT) and enterprise applications from 35 Availability Zones (AZs) across 13 geographic regions in the U.S., Australia, Brazil, China, Germany, Ireland, Japan, Korea, Singapore, and India. AWS services are trusted by more than a million active customers around the world - including the fastest growing startups, largest enterprises, and leading government agencies - to power their infrastructure, make them more agile, and lower costs. To learn more about AWS, visit <http://aws.amazon.com>

About Splunk: Splunk Inc. provides the leading software platform for real-time Operational Intelligence. Splunk software and cloud services enable organizations to search, monitor, analyze and visualize machine-generated big data coming from websites, applications, servers, networks, sensors and mobile devices. More than 13,000 enterprises, government agencies, universities and service providers in over 110 countries use Splunk software to deepen business and customer understanding, mitigate cybersecurity risk, prevent fraud, improve service performance and reduce costs. Splunk products include Splunk® Enterprise, Splunk Cloud™, Splunk Light and premium solutions. To learn more, please visit <http://www.splunk.com/company>.