several9s

Powering the automation of onpremise databases





КІСКВАСК

Industry: Retail Technologies: MySQL Hosting: Hybrid Datacenters: 4 Products: ClusterControl

USE CASE

Advanced database systems managed by home grown scripts which required a lot of time investment to maintain WHY SEVERALNINES

On-Prem automation of open source database clusters

BACKGROUND

Twin Falls, Idaho-based KickBack Rewards Systems (KRS) was formed in 1999 to help retailers reward their best customers as well as gain unparalleled insight into their consumer demographics and their shopping habits.

Over the years, KRS's award-winning solutions have not only helped its clients improve their understanding of their customers, but it has also introduced innovative marketing solutions making it possible to act on the accrued data.

Their mission "To make good customers better" has resulted in increased frequency of store visits and ticket averages, and lower turnover for thousands of clients across the United States and Canada.

CHALLENGE

At the heart of any loyalty program is a database of customers and their related information. Ensuring that those databases run efficiently, stay secure, and perform is crucial to the success of their operations.

Kickback Rewards ran their infrastructure using a hybrid cloud model, some on physical data centers and some in cloud environments. While they preferred the functionality and features that came along with the cloud side of things, they could only run some of their operations in the cloud. "We didn't want to and couldn't move all of our assets to a cloud environment," said Brian McManus, CTO of Kickback Reward Systems. "A few of our clients even specifically requested that we do not use cloud assets for their customer rewards programs."

Database cloud services offered Kickback automated deployments, backup and restoration, failover, and assistance with monitoring and maintenance but their on-prem setup was running on homemade scripts. While this allowed

them to remain compliant and keep the lights on, it was just too inefficient. "My team had done a really good job building our own home-grown solutions to ensure disaster recovery, business continuity, and security and compliance," said McManus, "but the limitations were showing and it seemed to be that MySQL Database Management and Administration was all the team was doing." Maintenance of their maintenance scripts was becoming a full-time job.

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There had to be a better way, so they set out online to find a better way of managing their on-premise database operations. Their requirements? The system had to support specific versions of MySQL, they wanted support for Galera Cluster and ProxySQL, and it had to tick all the boxes of maintenance they had come to expect from their home-grown solutions.

SOLUTION

The team at Kickback Reward Systems was familiar with Severalnines & ClusterControl but had never given it much thought in the past. Now with all the additional requirements and the increased need, they decided to give it another look.

ClusterControl allowed them to look across all their OLTP systems with a "single pane of glass", regardless of topology, platform, or how it was implemented. It offered them the Galera Cluster and ProxySQL support they needed as well as full "hands-off" cluster and node auto-recovery.

In ClusterControl, we found security patching, compliance monitoring, load balancing, and automated failovers to be far superior than what we had ever home-brewed.

Brian McManus, CTO of Kickback Reward Systems

OUTCOME

During the initial implementation, the team was able to get things set up and functioning. "We spent a year building out our highly-available on-prem clusters," said Erin Kolp, DevOps Technical Lead. "This covers from conception to architecture to design to data migration to full implementation to production. The sales support engineers were fantastic as well, providing deep knowledge of database and online transaction processing systems."

After the deployment, the team decided on MySQL Replication Clusters rather than Galera Clusters. They found their workloads would be a better fit for replication setups. Using ClusterControl they were able to make the switch-over live and in real-time. "The trick was doing it live, while the master (writer) ran to process transactions," said Kolp. "Our engineers were able to re-work and re-deploy the clusters with the assistance of ClusterControl and its powerful deploy/configuration abilities."

Next up, they are evaluating the functions in the ClusterControl Command-Line and API. "We look forward to extending and enhancing this solid database management platform," said Kolp. They also plan on integrating the remainder of their existing database systems into ClusterControl so that they can have true unified management and monitoring.