Moz Uses Percona to Optimize the Architecture and Find Slow Queries in Their Database Environment

Moz is a software company that believes there’s a better way to do marketing. A more valuable, less invasive way, where customers are earned rather than bought. They focus on search engine optimization (SEO), one of the least understood and least transparent aspects of great marketing, and they see that as an opportunity. They’re excited to simplify SEO for everyone through their software, education, and community.

Moz needed help with two database issues:

- Fast master/slave failover
- Slow query visualization

In the main database service, there are over 20,000 customers and each customer has three databases: a current, mid-term, and long-term archive. This is a total of 100k+ schemas spread over 64 primaries and 64 replicas. Moz uses an in house custom sharding solution. In total, there are around 250 database servers. Queries per second (QPS) on average is a few hundred, and peak QPS is a couple thousand.

Previously, there were load balancers that were not dedicated to the database and were saturated with too much throughput so they switched to using a manual failover system using DNS cnames. During failover, it was taking up to five to fifteen minutes for clients to switch – often forcing application restarts and reconnects. Clearly, a better solution was required.

“Our customers need data. Our business depends on providing that data all the time, whenever it’s needed, without fail,” said Phil Hildebrand, Senior DBA at Moz.

In the past, Moz has used Percona to analysis on their MongoDB clusters to tweak the architecture and improve response times for native node for Java script (Moz’s developers like to use JSON for their application development). They called in Percona experts again to suggest a better architecture.

“Providing our customers with current and relevant data that is accurate and up-to-date is the only way to stay relevant in our business. This means our databases have to be always available. Percona’s expertise in database architecture for both MySQL and MongoDB allows us to implement the best failover solution, and provides us with a way to continually monitor our environment so that our customers can make the business decisions they need to.”

-- Phil Hildebrand, Senior DBA at Moz

Moz leveraged Percona to:

- Improve active/passive failover time to maintain high availability for customers
- Find, examine and analyze slow queries in their database architecture
- Employ expert technical design and maintenance in order to improve database architecture
After performing an architecture and design audit, Percona suggested using ProxySQL for load balancing. ProxySQL is a high-performance proxy for MySQL and its forks (like Percona Server and MariaDB). It acts as an intermediary for client requests seeking resources from the database. Percona recommend and provided guidance on implementing this solution. ProxySQL helped reduce failover times to the required level.

Moz also didn’t have a great solution that was able to visualize slow queries across their architecture. They wanted to see how Percona Monitoring and Management (PMM) compared to other options. By using PMM, Moz could find and examine slow queries in order to diagnose root issues before they affected customers.

Using Percona expertise and software tools, Moz can guarantee that it’s customers always have access to the information they need to make important business decisions.

**Percona Server for MySQL provides a stable environment for growth**

Moz is using [Percona Server for MySQL](https://www.percona.com). Percona Server is a free, fully compatible, enhanced, open source drop-in replacement for MySQL that provides superior performance, scalability and instrumentation. With over 1,900,000 downloads, Percona Server’s self-tuning algorithms and support for extremely high-performance hardware deliver excellent performance and reliability.

**Percona Database Consultants quickly gets to the heart of issues and optimize performance**

[Percona consultants](https://www.percona.com) have decades of experience solving complex database performance issues and design challenges. Percona’s experts have worked remotely and on-site with more than 3,000 clients. Hildebrand said “Our customers bring us any issues they have, and we can use Percona to help troubleshoot when they relate to the database. Percona experts can usually provide a full and complete answer to most of our questions.”

**Percona Database Architecture and Design review validates that your environment matches your workload**

A [Percona Database Architecture and Design review](https://www.percona.com) makes sure that your data is built on a solid foundation that will meet high-performance demands. This service begins with a full analysis of your database, your applications and the surrounding infrastructure. It provides recommendations that consider performance, availability, functionality, resilience, and future capacity.

**Percona Monitoring and Management provides actionable metrics for understanding what is happening with your data**

[Percona Monitoring and Management (PMM)](https://www.percona.com) is a free and open-source platform for managing and monitoring MySQL®, MariaDB® and MongoDB® performance. It provides thorough time-based analysis to ensure that your data works as efficiently as possible.

**Contact Us Now**

To determine what open source database solution is right for your business, please call us at +1-888-316-9775 (USA), +44 203 608 6727 (Europe), or email us at sales@percona.com.