

Madwire® Achieves Performance Assurance for Amazon RDS Aurora Through Percona Database Audit and Consultancy Services



About the company

Madwire is a digital marketing company that provides award-winning online marketing, website design, and SEO services to small businesses through Madwire's Marketing 360® digital marketing software platform. Founded in 2009, Madwire is based in Fort Collins, Colorado.

Applications to support Madwire's services are developed in-house. The first version of Marketing 360® stored data in a NoSQL database. To gain a more dynamic, customizable reporting environment, for v2 of the service, the Madwire team chose the Amazon RDS Aurora Database.

As a testbed for the development of v2, the team migrated the data for the largest 15 customer accounts. Marketing 360® pulls together marketing metrics from a wide range of sources to present a single dashboard of marketing data for their clients. In some cases, the databases hold more than 10 years worth of marketing data for reporting and analysis.

The challenge

With such a huge volume of data to collect and report upon, the team ran into some performance challenges. Although the new development was to support reporting on-the-fly, ad hoc reports were taking upwards of half a minute to produce. It was clear that this would not provide acceptable performance in production.

Jeremy Gerk, Head of Application Development for Madwire, noticed that whenever he searched a database challenge, the answer almost always came from the Percona [Database Performance blog](#). He'd discovered that the blog had in-depth technical articles and how-tos above and beyond those supplied by other providers. So when Madwire decided to hire outside help to improve the performance of the Marketing 360® database API, their first call was to Percona.

“Online marketing services is a highly competitive industry, and to succeed we must deliver exceptional products. The performance improvements in Marketing 360® gained through working with Percona definitely provide added value to the application for our customers.”

Jeremy Gerk,

Head of Application Development,
Madwire

The solution

Madwire hired Percona to provide design consultancy and performance optimization services. As is always the case, the Percona service began with a full database audit and review.

After gaining a full understanding of what Madwire sought, Percona drew up recommendations for the development team. In practice, a redesign was not needed. The recommendations largely addressed database parameter settings and application query tuning. Using the Percona report as a guide, Jeremy and his team worked through their performance issues, and in a matter of weeks were able to deliver the revised application.

“The report was super-helpful in identifying exactly what we needed to do to achieve the desired performance,” Gerk said, “On top of that, though, the Percona consultant was excellent, providing insight as we worked through the report, answering any questions that we had. They confirmed that our choice of Aurora was appropriate for this development, and helped us to get the best out of the environment. We learned a lot through developing Marketing 360® v2 and in working with Percona on database and query performance optimization. Given the service that Percona provides, I’m not sure that we’ll ever have the need to hire our own DBA!”

Once all the recommendations had been implemented, the customizable reports were executing in less than 5 seconds on average, compared to the 30 seconds they had previously taken. This much-improved performance helped reinforce Marketing 360® as a strong contender in a competitive marketplace.

Percona Database Consulting quickly gets to the heart of issues and optimizes performance

[Percona consultants](#) have decades of experience solving complex database performance issues and design challenges. Percona experts have worked remotely and on-site with more than 3,000 clients. “Based on this experience, we would definitely hire Percona again,” Gerk said. “The audit and performance report gave us the confidence to take the application into production, saved us hours of research, and provided us with a bank of information based on in-depth knowledge and experience.”

Percona Database Performance Audit validates that your environment matches your workload

A [Percona Database Performance Audit](#) is designed to make 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.

Madwire® Exchange used Percona to:

- Carry out a database audit on Madwire’s use of Amazon RDS Aurora
- Provide recommendations on the best way to achieve faster response times from SQL based reports
- Provide online resources that help developers self-serve answers to many of their database concerns through the Percona Database Performance blog