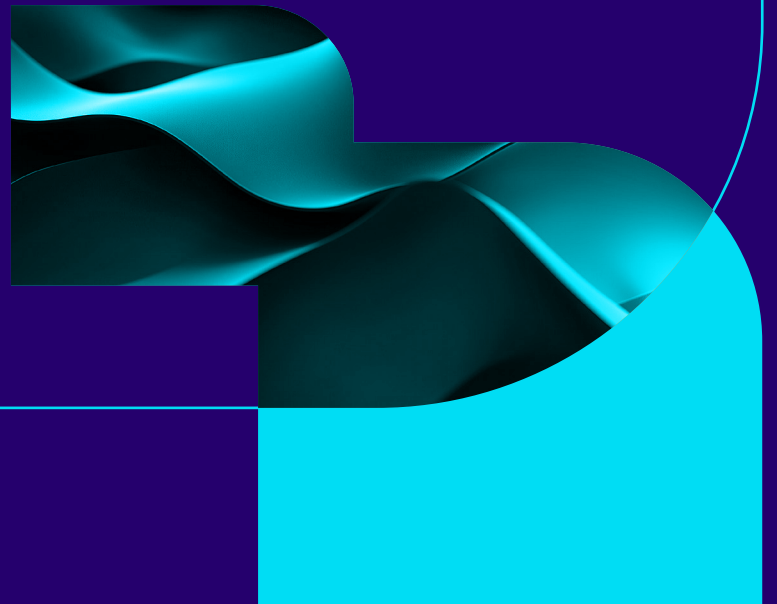




Case Study

*Using Instaclustr for open source
Apache Cassandra®*
**TO ENSURE FLEXIBILITY,
SCALABILITY, AND COST CONTROL**



Industry

- Digital Marketing
- E-Commerce

Products used

- Managed Apache Cassandra®

Diginius is a SaaS technology company based in London that specializes in digital marketing and e-commerce solutions.



Challenges

- Limited support and node failures disrupted operations
- Challenges with scaling and managing Apache Cassandra affected data storage needs



Results

- High performance with scalability and low latency
- Flexible, open source, no vendor lock-in
- Reliable with health checks and zero downtime

The initial situation

In the past, Diginius used the services of a hoster for its Cassandra instances. However, there was hardly any support and some problems with failing nodes. In addition, the scaling requirements could not be met. The company's goal was therefore to introduce an easily scalable Cassandra cluster with provider support that could meet its own data storage requirements now and in the future. It was important for Diginius to have comprehensive support for the management and operation of the Apache Cassandra environment, including provisioning, monitoring, and backup, as well as proactive resolution of known and unknown issues that could impact application performance.

Partnering with Instaclustr

After an extensive research and evaluation phase, Diginius decided to use Managed Apache Cassandra from IT service provider Instaclustr. Diginius also looked at other offerings, but they were out of the question for cost reasons. The decisive factor in the decision was Instaclustr's offering and expertise. For example, Instaclustr already worked with customers on a large scale in the Cassandra area, also operating mission-critical clusters. Last but not least, the Instaclustr solution had the necessary scalability and data storage capabilities to meet Diginius' requirements.

"We chose Instaclustr for administrative, functional and also cost reasons. Instaclustr was able to provide us with an out-of-the-box solution and made us a very attractive offer in terms of price. In addition, the support offer and the possible migration without downtime were very convincing arguments," explains Nate Burke, founder and CEO of Diginius.

The implementation

Once the decision was made to use Instaclustr, Diginius immediately started the migration without first launching a pilot project. After an initial consulting phase that included a review of the existing cluster, Instaclustr recommended changing the structure of some tables to prevent partitions from growing arbitrarily large over time. This required some work on the code and reporting, which took place over a period of about a month.

After that, Diginius prepared the database connections for the transition to the new cluster. Instaclustr then performed the actual migration, which took only a few hours, and temporarily synchronized the two clusters. Diginius then moved all the connections to the new cluster, which was completed within a day. The connections were maintained for about a week to ensure that everything was working correctly. After this verification was successful, Instaclustr removed the connection to the old cluster, which was then decommissioned. The migration project was largely carried out by the technical team at Diginius in close coordination with Instaclustr.

The solution

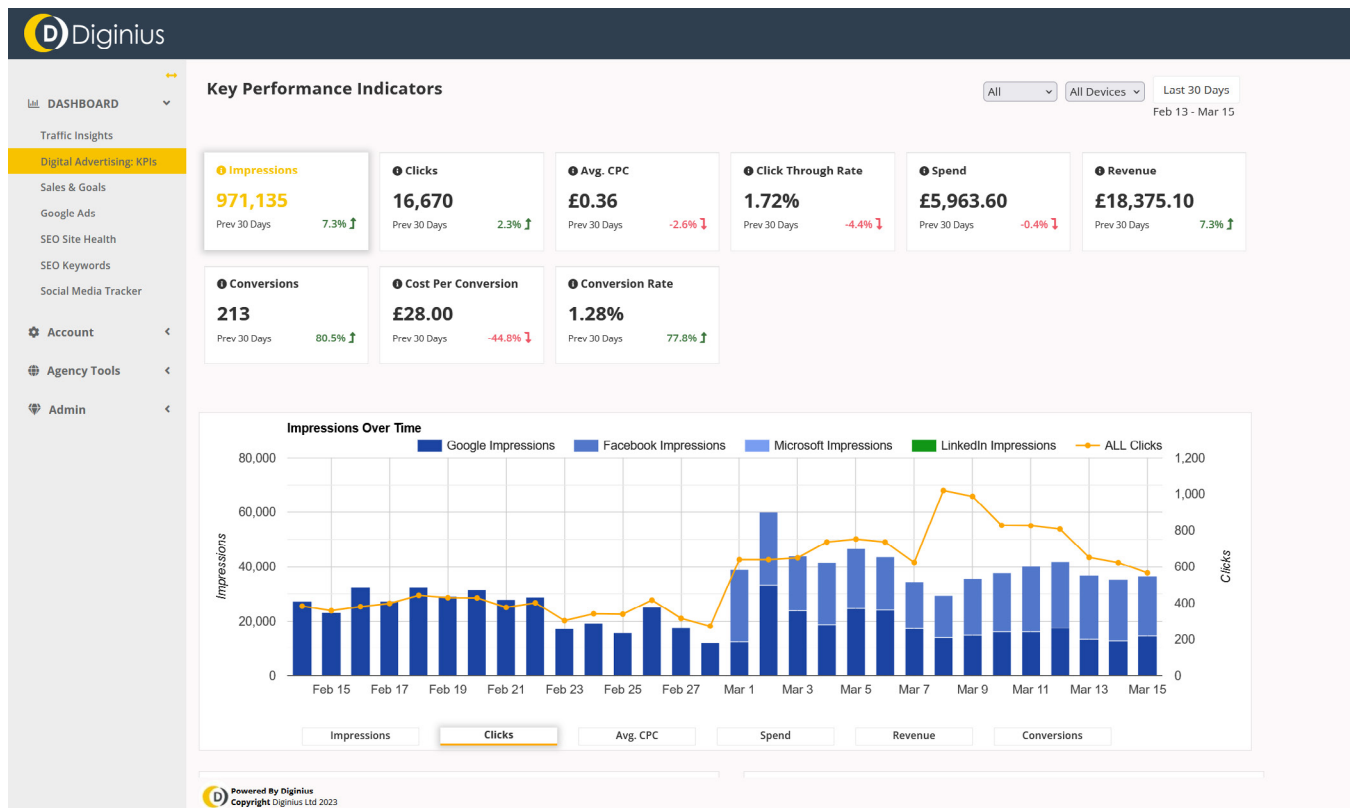
Numerous companies already rely on Apache Cassandra, the world's leading NoSQL database, to manage large volumes of data. As a universal transactional database, Cassandra's strengths lie in scalability and availability. Thus, Cassandra is a good option for companies that require 99.9% or higher availability. In addition, Cassandra is ideal for companies that want to flexibly expand their services as load increases, as scaling to multiple nodes can be done in minutes.

A proven operating environment with 24x7 support is especially suited for effective and secure deployment of Cassandra. Instaclustr for Apache Cassandra offers a powerful combination of automated functions within the platform, expert support around the clock, and processes that cover even complex customer requirements. Instaclustr takes over the management of Cassandra, allowing customers to focus on innovations in their other application stack. Diginius therefore also uses Apache Cassandra in a managed platform model from Instaclustr, namely on Amazon Web Services in a three-node environment with a storage capacity of 250 GiB.

Instaclustr's Managed Platform for Apache Cassandra is used by Diginius for storing customer data, namely all data that the company collects from external APIs and uses for reporting, bidding, or algorithmic calculations. Diginius' iHub reporting software is also connected to the Cassandra databases.

"In terms of reliability and provider support, we are extremely satisfied with Instaclustr Managed Apache Cassandra. Relying on Instaclustr was clearly the right decision and we are now well prepared for the future in terms of database management. Most importantly, Instaclustr's Managed Platform offering and highly scalable NoSQL data storage will help us grow our business while relieving our own development and operations staff from database management tasks."

Nate Burke, Founder and CEO of Diginius



Diginus Insight software provides a consolidated view of customer data in an easy-to-use interface.”(Source: Diginus)

The advantages

According to Diginus, the Instacluster solution is stable and runs completely smoothly. The company particularly emphasizes Instacluster’s comprehensive and continuous support in the operation of Cassandra. Instacluster also warns Diginus of potential problems and recommends actions to prevent degradation of cluster availability and performance. Thanks to the permanent system monitoring by Instacluster, Diginus only has to deal with a small amount of administration. It also ensures that timely action is taken in the event of problems or disruptions.

Diginus intends to continue to dynamically drive the company’s growth. In this context, the requirements for data storage will also continue to increase. With Apache Cassandra and the support of Instacluster, Diginus feels it is in an excellent position to meet this challenge. This also makes it easy to add additional nodes or scale existing nodes.

NetApp® Instacluster specializes in open source technologies for enterprises. Our managed platform streamlines data infrastructure management, backed by experts who ensure ongoing performance, scalability, and optimization. This enables companies to focus on building cutting edge applications at lower costs.