Overview
Adform is the leading independent and open full stack advertising technology platform that encompasses data, creativity and trading into one seamless enterprise product suite servicing media agencies, trading desks and advertisers.

Challenge
The advertising industry has seen dramatic change over the last decade as the market experienced a shift to digitalization. Digital marketing campaigns are becoming more widespread and increasingly efficient as organizations incorporate digital platforms into their marketing plans and people shop online instead of visiting high street retailers. Many large and medium-sized companies have therefore started making major investments into digital transformation.

Financing a digitalization strategy creates a unified approach to collecting, analyzing and activating massive data sets from numerous sources, replacing previously fragmented marketing channels. Adform, a digital advertising and marketing specialist, offers customers an end-to-end advertising infrastructure to plan and run their campaigns.

The company, however, faced a major challenge: to identify a highly scalable and reliable analytical database solution that allows clients to unlock the full potential of their online campaigns.

Adform has built a reputation for rapid growth, innovation and heavy investment into advanced research and development. The company specializes in ad-serving, banner advertising, mobile advertising and digital marketing, and the organization’s operating platform also embraces campaign planning, optimization, analytics and reporting. Twenty-one thousand advertisers, 1,600 agencies and 800 of the world’s leading publishers currently employ Adform technologies and services.

“Compared to alternative solutions, the competitively priced Vertica offers better scalability while standardisation boosts operational efficiencies.”

DR JOCHEN SCHLOSSER
Senior Vice-President Data
Adform

At a Glance

| Industry | Consumer Products |
| Location | Copenhagen, Denmark |
| Challenge | Required a highly scalable, high-performance database to ingest and analyze massive data volumes generated by an advertising platform. |
| Solution | Vertica Analytics Platform offers vast scalability to advertising infrastructure. |
| Results |  
+ Highly scalable and reliable data analytics system handling more than one million requests-per-second.  
+ Manages and analyzes massive data volumes rapidly via a highly structured database, eliminating the limitations of traditional data warehouse technology.  
+ 99% of reports generated in less than three seconds, satisfying SLAs and boosting customer satisfaction. |

“Following our foundation in 2002, we’ve seen gross revenue grow by 174% year-on-year, operations expand to 18 countries and the number of employees rise from five to 700,” explains Dr Jochen Schlosser, senior vice-president data, Adform.

“We’ve been at the forefront of the digitalization transformation from the beginning. As collecting, distributing and using data is critical to our business, we’ve developed a single converged platform to help clients transition,” continues Schlosser. “Creating a highly...
flexible, standardized and scalable system is therefore the biggest challenge to dealing with ever-increasing data volumes and producing the analytical reports our clients want today and in the future."

Solution
After researching the market for a high-performance analytics platform and discussing the company requirements with various vendors, Adform chose the Vertica Analytics Platform from HPE Software (now part of Micro Focus®). The solution operates at the core of Adform's mission-critical infrastructure, which currently operates and scales on more than 1,000 servers distributed across the globe.

"Compared to alternative solutions, the competitively priced Vertica offers better scalability while standardization boosts operational efficiencies," says Schlosser. "With exponential data and revenue growth, we needed a premium product from a well-established partner. This technology now forms an integral part of our future business roadmap."

Primary components of Adform's end-to-end operating infrastructure include a Programmatic Publisher Ad Server, a Supply Side Platform, a Header Bidding System and a Software-as-a-Service (SaaS) Advertising Technology Platform to deliver, measure and segment customers' advertising. All components employ Vertica, a highly scalable column-orientated relational database that handles modern analytic workloads with high-performance query analytics functionality. Other important infrastructure elements include a customer self-service capability and an internal intelligent research cluster for adver campaign planning.

Results
Today, over 10,000 large advertising organizations rely on Adform's global infrastructure to create millions of user insights and personalized experiences for top brands across the web, mobile and digital media. Together with Vertica, the Adform platform handles over a million requests per second, each requiring complex statistical, modelling and decision-making calculations on numerous datasets including each user's digital journey touchpoints, customer relationship management data and third-party demographic profiles.

“Our customers simply conduct self-service analytics on the data we've collected to know how their advertisements have performed,” confirms Schlosser. “With Vertica, clients have the flexibility to perform ad-hoc queries in about two seconds and 99% of all reports are generated within three seconds. This ensures we guarantee our Service Level Agreement. Before implementing Vertica, queries would take between 20 and 30 seconds, much to the frustration of many clients. As a result, customer satisfaction has increased significantly.”

In addition to significantly improved levels of customer satisfaction following the introduction of Vertica, Adform has noted another benefit. People with only basic SQL knowledge can readily access and process the Big Data pool; an impossibility before the introduction of Vertica.

“Thanks to Vertica, we're now completely future ready even with the exponential growth we're experiencing. When we add new hardware our Big Data analytics scales automatically,” concludes Schlosser.