Who is EOITEK?
EOITEK is an intelligent big data analysis solution provider. Using artificial intelligence and big data technologies, it helps customers discover the value of operational and maintenance data to promote enterprise digital transformation.

Company and data growth caused performance issues
Gartner predicts that by the end of 2020, 40 percent of large enterprises will deploy AIOps platforms to gain business value from operations data, move towards proactive fault detection, and intelligent system maintenance and operation. Designed to support large organizations in the areas of log data analysis, trouble shooting, event management, and capacity prediction, EOITEK’s Sharplook centralized platform provides intelligent processing capability for IT operations. Machine learning-driven, it reduces the noise of a large number of alarm events and correlates different data sources for root cause analysis. This improves operational efficiency and reduces costs. Mr Xiaobe GE, Chief Technology Officer for EOITEK, explains the challenges associated with this: “At first we stored our clients’ data using Elasticsearch, an open source data search and analysis platform, and an Apache Hadoop datalake. However, with some of our banking clients managing data volumes of over 15TB per day, we started to see a decline in performance. Sometimes our clients would open their data dashboard and it would take up to 30 seconds to load.”

EOITEK sees company growth of over 50% each year, in line with the Chinese financial services market which is growing rapidly. “Our data storage model was based on log data, and less suited to metric data, but our clients were generating huge volumes of metric data and we needed a way to aggregate this so that we could include it in analysis. Our business is entirely data-driven, so this was a critical issue for us to solve. We needed a more sophisticated and performant solution,” continues Mr Xiaobe GE.

Vertica embedded analytics for data-driven decision making
Mr Xiaobe GE learned about the Vertica Analytics Platform when he attended a Vertica conference. Vertica is a massively parallel processing (MPP) database designed to run across a cluster of nodes. Specifically designed for analytic workloads, Vertica’s blazing fast performance, advanced analytics, ease of deployment, and support for data scientists make it tailor-made for embedding, and this is just what EOITEK needed.

EOITEK signed an OEM agreement to embed Vertica into the Sharplook architecture. EOITEK developers were very familiar with SQL databases, but needed some support to fully leverage the MPP model and optimize data queries accordingly. “The local Vertica team was a great support to us in leveraging the data using Elasticsearch, an open source data search and analysis platform, and an Apache Hadoop datalake. However, with some of our banking clients managing data volumes of over 15TB per day, we started to see a decline in performance. Sometimes our clients would open their data dashboard and it would take up to 30 seconds to load.”

“Once Vertica was embedded in their Sharplook instance, our clients noticed a massive performance improvement straightaway, when their dashboard data was returned 10 times faster than before, enabling true data-driven decision making.”

Mr Xiaobe GE
Chief Technology Officer
EOITEK
Vertica features. Any questions we had were answered quickly and knowledgeably. We particularly appreciated the support in setting up a unified model, still leveraging our Hadoop datalake. This allows us to only transfer active, ‘hot’ data into Vertica, while the rest of the data is stored in Hadoop,” says Mr Xiaobe GE.

Vertica’s metric data aggregation capability is really helpful in analyzing data and leveraging business intelligence (BI) tools to develop dashboards. Running only the ‘hot’ data in Vertica has tremendous benefits too, according to Mr Xiaobe GE: “Once Vertica was embedded in their Sharplook instance, our clients noticed a massive performance improvement straight-away – their dashboard data was returned 10 times faster than before, in just 2-3 seconds, enabling true data-driven decision making. The upper level of performance improvement is unlimited since some queries timed out before, and Vertica never failed.”

Superior data compression reduces TCO

Before Vertica was embedded at the heart of the Sharplook solution, EOITEK needed 50 servers to store all its client data. Thanks to Vertica’s superior data compression, the team now requires fewer than 10 servers – hardware saving of 80%. The EOITEK team also appreciates the ease and maturity of Vertica’s monitoring and management. Overall, the intelligent algorithms in the Sharplook platform assist root cause analysis, which shortens troubleshooting time from hours to minutes, and increase staff productivity for many EOITEK customers by more than 10 times.

Mr Xiaobe GE is clear on the benefits Vertica offers EOITEK clients: “Leveraging Vertica, we reduce our clients’ hardware requirements through a data compression ratio of 5:1, lowering their TCO. We deliver a tenfold performance improvement with a unified data storage approach, and Vertica’s advanced analytics capabilities help our clients with capacity planning and trend prediction.”