

ivi

Vertica delivers high-performance audience and advertising analytics for faster and more dynamic decision making.

Overview

As the largest online streaming service in Russia, ivi attracts monthly audiences of over 48 million unique visitors accessing an extensive catalogue (65,000+ items) of films, cartoons and TV shows. The company delivers original content from six major Russian production studios, as well as over 400 European and Russian independent film producers. Subscribers of ivi spend more than 70 million hours on the streaming service each month with over 250 million video views. The service supports global access from any kind of device, including smartphones, tablets, set-top boxes and Smart-TV apps.

Challenge

Understanding exactly what content consumers want, when they want it and on which

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DMITRY ANTONOV

Head of the Technical Analytics Department
ivi

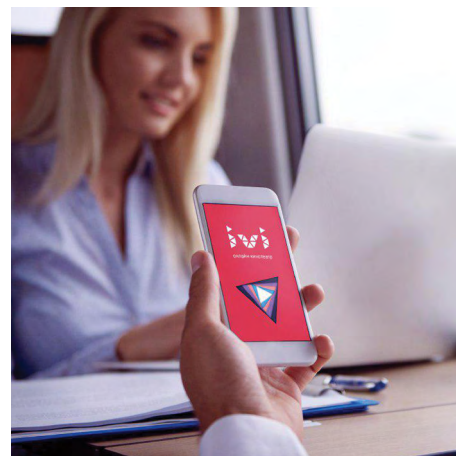
device is critical for ivi to develop an engaging online streaming service that effectively connects advertisers with the right audience. ivi’s previous PostgreSQL-based data warehouse was used to manage all key statistics for content consumption and advertising placements and conversions, which were provided to ivi’s business partners, including advertisers and content copyright holders. Poor performance issues, low productivity, and lack of system flexibility prevented ivi and its partner analysts from accessing the insights they needed to make business decisions in a timely manner. Given the central role data analytics plays in content and ad optimization, ivi knew the company needed to switch to a more modern DBMS platform specifically designed for highly performant, large-scale data analytics.

“We were looking for a solution that would allow us to work flexibly with information, keeping raw data about every advertising or content display to make data analytics as convenient as possible, while delivering comprehensive reports,” recalls Dmitry Antonov, Head of the Technical Analytics Department for ivi.

The primary requirements for a new analytics platform were high performance, responsive report generation, and fast data-loading capabilities. Price was an important factor as well.

Solution

Vertica was initially recommended to ivi by technical colleagues. Based on this



At a Glance

Industry

Media and Entertainment

Location

Russia

Challenge

Ensuring accurate payments to copyright holders and advertisers by leveraging a more informative and flexible data analytics approach

Products and Services

Vertica Analytics Platform

Results

- + Significantly improved analytical query speed for more detailed business reports
- + Deeper insights on content consumption patterns and advertising metrics
- + Supports management decision-making based on operational analytics and reporting
- + Accurate payments to copyright holders and advertisers

“Since we’ve introduced Vertica we are producing much more timely and accurate data analysis. The company has grown, and the number of employees relying on analytical data has increased four-fold.”

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recommendation, the ivi IT team deployed and tested Vertica using the Community Edition (CE) free trial license to ensure it would deliver at least the same performance as their existing platform. Next, ivi compared Vertica with Sybase IQ through a pilot project and after assessing the benchmark results, decided Vertica would be the best solution moving forward.

The Vertica implementation was managed directly by ivi’s IT team. For the production system deployment, three commodity hardware servers were installed.

Transitioning from Vertica Community Edition to a commercial license took approximately six months, with ivi experts thoroughly testing all reports to ensure they were delivering accurate results. “We made sure there were no problems with data loss or connection to visualization tools. Report preparation is now much simpler, and we are able to generate a huge range of reports fast for the business,” says Dmitry Antonov.

Over time, ivi migrated to Vertica Version 7, deployed on the same three servers and without the need for external storage. Tableau is used for reporting and data visualization and Vertica integration is implemented through ODBC drivers. In addition, Vertica has its own data ingestion tools and report-loading modules. The ivi team also tested Vertica’s compatibility with Microsoft services as a potential extension of their reporting system.

Vertica collects and analyzes advertising and content data, as well as payment information. “This is critical information, and the analysis should be carried out as quickly and accurately as possible,” says Dmitry Antonov. The

data is transferred from the billing system and ingested by Vertica from the system logs of the servers where the advertising and the content view data is recorded.

Vertica users include BI specialists within ivi’s analytics department, the online product marketing team (analyzing customers demand for movies and TV-series products), and staff from several other departments. Vertica reports are critical for the day-to-day operations of approximately 150 people, including those responsible for advertising, preparation of the content catalogue, selection and selling of display advertising products, as well as for the analysis of paid-content online sales.

Vertica delivers reports for shareholders and senior management, and helps assemble payment data for partners, advertisers and copyright holders. To improve customer understanding and engagement, ivi also collects and analyzes user behavior data, which is processed by its Hadoop stack and accessed by Vertica for efficient reporting drill down.

Results

By introducing Vertica, ivi has significantly improved its data analytic performance. “Vertica has been a real revelation for us. The diversity and depth of our analytics has increased massively. We have the flexibility to work with the data we accumulate and the scope to manage one-off queries: the data is still stored in the raw format and can be studied from a wide variety of angles. Since we’ve introduced Vertica we are producing much more timely and accurate data analysis. The company has grown, and the number of employees relying on analytical data has increased four-fold,” says Dmitry Antonov.

The Vertica implementation is expanding to accommodate data growth and the production environment is migrating to a new cluster of five servers. The old three machine cluster will still be leveraged as a development and testing environment. The company is pleased with Vertica’s licensing model because it is purely based on the amount of data being analyzed rather than hardware parameters or number of users. This allows ivi to run a development and testing environment without requiring additional Vertica licenses.

At the same time, ivi is upgrading to the latest Vertica Version 9.1, which contains many additional features that will enhance their data warehousing applications and tasks, including Flattened Tables. Flattened Tables allow users to exploit columnar design for ad-hoc reporting by creating very large tables which include columns that get their values by querying other tables. This feature accelerates complex reporting because queries can run faster on a flattened table compared to a standard or optimized join.

In addition, ivi developers may leverage Vertica’s in-database machine learning functions to support new advanced analytics scenarios and use cases in the organization. In addition to Vertica’s in-database machine learning capabilities, ivi can take advantage of Vertica’s data preparation functions as well as integrate with existing external machine learning environments, bringing more advanced analytics to the data.

Vertica is now the core platform ivi will use to aggregate and analyze big data in order to better understand consumer behavior and effectively monetize their subscriber audience.