Snowflake's Highly Scalable Computational Power Handles Large Data Volumes Easily
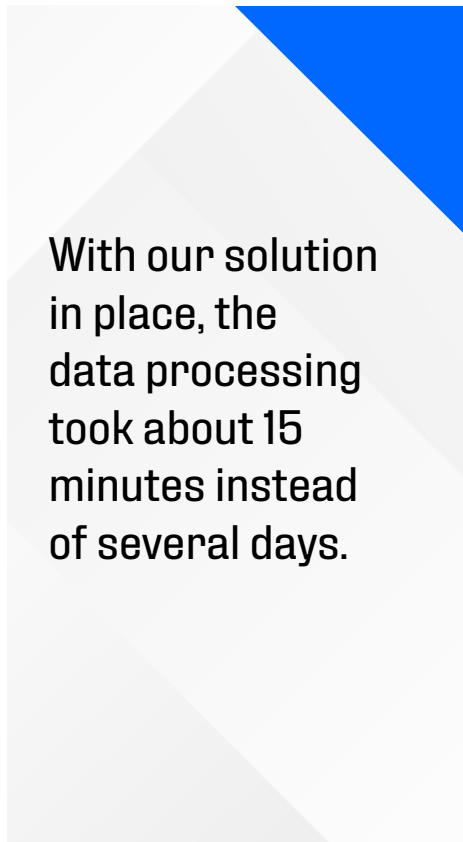
Challenge

The client was having difficulty aggregating and processing a set of over 3 billion data points, which was preventing the client from analyzing the data and performing accurate reporting. The system the client originally had in place could not drill down to the detailed level that the client wanted, nor could it handle processing the data in a reasonable amount of time. Not only would it take an extremely long time to navigate within the data files, but the system would frequently crash, using up valuable time that the client could have spent on other pursuits and making the client unable to provide customers with detailed information that could further boost sales.

The client was faced with a two-part problem with the legacy system consisting of the inability to prepare the data because it was beyond the capability of the system, as well as the inability to report on that data due to the slow processing time and crashes. These interrelated problems were what drove the client to search for a solution and reach out to INSPYR Solutions.

Solution

Our team had previously worked with this client as a trusted IT staffing vendor, so it was a logical move to engage our Professional Services division, a Snowflake partner, to assist with this data warehouse project. Our team identified the two parts of the client's problem and worked with them to create a solution that would not only solve both issues, but provide the client with a host of other opportunities by moving them from their legacy system to a flexible, modern solution utilizing

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Snowflake and Tableau.

Previously, the client could not prepare the data they truly wanted because it was well beyond the capability of their system. This meant that the client was settling for hourly metrics versus to-the-minute metrics, which meant that they were not able to provide the kind of aggregate data that the client wanted to be able to provide to their own customers. Even while settling for hourly instead of minute-by-minute data, the client had still been seeing process times of around four days when trying to aggregate the data.

Our team worked with the client to create an elastic system supported by Snowflake that would allow them to utilize the large amount of processing power needed for aggregating the client's large data sets as needed. This would make it easy for the client's team to perform this work and stay on top of the incoming data. We also set the client up with Tableau to be able to create visualizations of the data to make it easier to understand. Both of these tools would make the client's work more efficient and far less time consuming, saving both time and money.

Outcome

With our solution in place, the data processing took about 15 minutes instead of several days and was then further optimized later on. Visualizations of the data went from taking five minutes to create to just seconds to generate. In the past, the client had difficulty analyzing and reporting on the data because the system was so slow that it could take 30 minutes just to change a filter. Our solution gave the client the ability to do those same tasks in a fraction of the time. For example, we got the processing timeframe for changing a filter on the massive data set down to just 5 seconds.

We drastically changed how the client did business because the new system allowed the client to provide far more detailed reporting to their customers and to perform this work much more efficiently. Under the old system, the client was not able to provide such a granular analysis, nor could they do so in a reasonable amount of time. This had resulted in lost opportunities and unsatisfied customers, as well as data that was not as detailed as the client really wanted. With the new tools in place to support robust data analysis, the client's data science department could do new analyses they could not have even attempted in the past. The client was able to not only meet the demands of their customers, but exceed them with new information and analyses.

In addition to being able to work with the data in new and exciting ways and maximize their efforts in serving customers, the client was interested in expanding the team to support the newly developed capability once the project was complete. With our flexible resourcing model, we were able to offer our client the option of hiring consultants who had worked on their specific project, greatly minimizing the time needed for knowledge transfer with proven resources. With this project completed, the client recently engaged INSPYR Solutions to work with them to implement Snowflake and Tableau as a solution in other areas of the company.

Client Profile

The client is a national media network with a worldwide reach that supports various television, radio, and digital outlets, as well as news reporting services. As the information and entertainment industry has developed over time, this company has grown and adapted to provide services across a variety of digital channels including VOD and podcasts. The client remains an industry leader in developing and distributing content across various channels and serving its partners through these networks.

Technologies Supported/ Created

Tableau, Snowflake, Postgres SQL

About INSPYR Solutions

Technology is our focus and quality is our commitment. As a national expert in delivering flexible technology and talent solutions, we strategically align industry and technical expertise with our clients' business objectives and cultural needs. Our solutions are tailored to each client and include a wide variety of professional services, project, and talent solutions. By always striving for excellence and focusing on the human aspect of our business, we work seamlessly with our talent and clients to match the right solutions to the right opportunities. Learn more about us at inspyrsolutions.com.