

Case study

Application Modernization Services Assist an HCP Advertising Firm to Improve Quality of Data Analysis and Decisions



Customer Overview

Customer:

An industry-leading Healthcare Professionals (HCP) Digital Engagement Solutions provider fueling programmatic, email, social media, and advanced TV advertising campaigns

Profile:

The advertising firm's data and solutions enable the most accurate identification, targeting, and measurement of HCP advertising campaigns

Industry:

Advertising Services

Services:

Application Modernization

Business Need

As a firm that focuses on HCPs and delivers data to fuel its omnichannel HCP marketing programs, the client has access to multiple public and private data sources. At the same time, the client relies on a legacy healthcare Data Management System that fuels HCP targeting and insights. Through various campaigns and data sources, the data is imported into the system along with deduplication and licensing updates. Email hygiene services are also run to validate emails and segregate business usability.

The system was built on proprietary ASP.NET MVC and SQL and focuses on enabling users to search for hospital and clinical data with multiple permutations and combinations that are dynamic. Since this data was mushrooming day by day, system performance deteriorated, and the advertising firm found it difficult to sync data from different apps and data sources.

Although the internal IT team began to revive the application by adding new features concerning user ease and experience, the SQL data warehouse was incapable of handling huge data inputs. Therefore, the advertising firm was looking to modernize the application and develop it as a cloud-native application. They also wanted to enhance data management, establish a robust application architecture, and make the app extremely user-friendly.

Solution and Approach

Synoptek provided a suite of Professional IT Services to help the advertising firm cater to the needs of their customers and deliver data to fuel their omnichannel HCP marketing programs. We enabled them with robust technology solutions and have provided cutting-edge Application Development and BI and Data Engineering Services using advanced Agile methodologies, Project Management tools like Jira, and the latest frameworks such as .NET5, React, FastAPI, and Snowflake.

Application Modernization Services

Synoptek curated cross-platform deployment strategies and implemented a microservices-based architecture with:

- Segregation of Web API and Data API and enabled a brand-new UI with mobile compatibility
- Dynamic Search feature for admins and guided search for subscribers
- Third party integrations for email hygiene services and social media data distribution using Live Ramp/RTA
- Faster verification through automated testing and enhanced tester confidence
- Snowflake data cloud to increase storage capability, enhance performance, and improve SQL Query execution time
- Cross-platform deployment strategies and enable a portable and scalable deployment

BI and Data Engineering Services

To enable seamless data enrichment, file processing, and reporting of customer campaigns in real-time, Synoptek

- Data engineered campaign logs and appended them with physicians' data for retargeting leads/opportunities
- Configured automated real-time reporting and enhanced and migrated current manual processes using AWS Services
- Synched real-time logs and statistics from multiple systems and set up AWS QuickSight reports
- Set up Data API backend architecture using Amazon Kubernetes and Docker for dynamic query building and improved scalability and availability



Great job at executing the deployment as planned. This architecture framework will act as a strong foundation for the platform, moving forward. I am still amazed at the fact that using current technologies, we completely re-wrote the DMS app and transformed it into a cloud-native application. Thank you!

- Head of Programmatic Technology

Business Benefits

Synoptek's Application Modernization Services have helped the advertising firm enjoy better application usability, security, and performance – which eventually improved customer satisfaction and retention – while allowing the firm to focus on the business.

The completely cloud-native application now uses AWS Serverless technology and enables the firm to:

- Bring down turnaround time of delivery from 1 day to 5-15 minutes
- Increase workforce productivity due to fast and accurate access to necessary data.
- Due to the improvement on technology stack, the ratio of feature issues are now only 5% from the business prospective.
- Experience performance improvement in terms of query execution time as high as 90% by switching from SQL DB to Snowflake DB.
- Improve satisfaction, productivity, and overall experience for all stakeholders.
- Enjoy enhancements in performance and security as well as cross-platform support using Microservices.
- Increase backend development speed using the FastAPI framework.
- Implementation of Automation testing using Selenium has increased the overall confidence and identifying regression bugs has become effective.



**INCREASE WORKFORCE
PRODUCTIVITY**
by **50%**



**PERFORMANCE
IMPROVEMENT**
in terms of query
execution
increased by 90%



**RATIO OF FEATURE
ISSUES**
reduced to 5%
from the business
perspective

About Synoptek

Synoptek delivers accelerated business results through advisory led transformative systems integration and managed services. We partner with organizations worldwide to help them navigate the ever-changing business and technology landscape, build solid foundations for their business, and achieve their business goals.