

Customer Case Study:

SNP Deploys a Data Warehousing Solution on Microsoft Azure for St. Vincent's Health Partners Helping Them Save a Projected \$100,000 a Year

Customer:

St. Vincent's Health Partners Inc.

Website:

<http://stvincentshealthpartners.org/>

Country:

USA

Industry:

Healthcare

We are a data-driven organization and data is our lifeblood. We needed to implement an enterprise data warehouse and analytics capability efficiently and on budget with our in-house team. Having worked with SNP on previous projects allowed us to build a trusting relationship. We also observed and benefitted from their expertise with Microsoft cloud technologies. SNP has augmented our staff by covering all of our data warehouse and analytics expertise gaps. They have also worked closely with our organization to create a realistic budget for the project. We could not have successfully taken on this project without SNP's partnership."

**Director of Healthcare Informatics & Technology
St. Vincent's Health Partners.**

Software and Services:

Microsoft Azure

- Azure Platform-as-a-Service (PaaS)
- Hive Storage
- Azure SQL Data Warehouse
- HDInsight
- BI-Tableau
- Blob Storage

About the Customer

Founded in June 2012, St. Vincent's Health Partners has been recognized as a leader in the healthcare industry. Their mission is to provide the right care, at the right time in the right setting, using the right resources. St. Vincent's Health Partners values efficient, cost-effective, quality healthcare so that patients can embrace and enjoy healthier lives.

SVHP is working to support patient care through 140+ care transitions, through care coordination at the enterprise level and facilitate case management at the patient level through reinforcement of the patient-provider relationship. SVHP's high-valued network cares for patients in Pre-Acute care (physician and healthcare ambulatory offices), Acute Care (hospital based urgent care, emergent care and inpatient services), and Post-Acute Care (skilled nursing facilities, home health agencies, hospice etc.).

SVHP continues to enhance its skills to meet new models of reimbursement (ACO, quality, BPCI etc.) and evaluation (MACRA). SVHP intends to exceed expectations, set by the Quadruple Aim: Quality Care, Cost Effective Delivery, Patient and Provider satisfaction.



Customer Case Study:

SNP Deploys a Data Warehousing Solution on Microsoft Azure for St. Vincent's Health Partners Helping them Save a Projected \$100,000 a Year

Business Need

- The SVHP Healthcare Informatics Team spent 80% of their time aggregating and normalizing the data and 20% of their time analyzing the data. They needed a data warehouse solution which would normalize all their data going forward.
- With the data being ingested from various insurance payer accounts, they needed a solution which would help them manage new data requests at a quick turnaround time, with built in scalability to handle large data sets.
- A solution that would help SVHP generate reports in different formats of .xls, .xlsx, .xml, CSV and text, which were to be grouped into various subject areas.
- A major challenge of interoperability was each dataset addressed an entity of the payers' current business and each payer required its own set of reports.
- An integral part of this data warehouse solution would be to provide an efficient and effective way for the SVHP team to obtain detailed reporting and alleviate any technical and staffing challenges.
- Additionally, the solution should provide real time data analysis and predictive analytics to enhance operational efficiency and productivity of their network.

- SVHP users could now map the required fields for data warehousing and populate data in dimensions and fact tables to generate reports using BI tools like Tableau.
- Data transformation was configured using a layer of Hive, which facilitated the semi structured data storage and processing.

Benefits

- SNP's proposed solution uses a configurable approach which is based on the concept of reusable components. The code written for one Payer Contract will work across all Payer Contracts, this allowed SNP to use their time effectively throughout the project.
- With the entire solution built on Azure, SVHP gets a centralized, cloud based data warehouse to query, join and access incongruent data collected from multiple sources that were initially not supported.
- All the errors in the transformation phase were logged into Blob storage and email notifications were sent based on the configuration settings which were not in place earlier.
- By automating the data ingestion process, the team now spends 10% of their time aggregating and normalizing data and 90% of their time analyzing the data. This efficiency gain will be critical in helping to identify, track, trend and produce information for the CIN physicians to help support their work at the point of patient care.
- Hive storage assisted the SNP team to compress the size of SVHP's historical data by 25% - reducing their overall operational costs significantly.
- SNP's customized algorithm is written with a single code, which can manage data and generate operational reports in most formats, across multiple versions of formatted files - i.e. .xls, .xlsx, .csv, .xml etc.
- With the added benefit of self service, real time data analysis and predictive analytics to their business, SVHP has access to critical information to make data driven business decisions going forward.

Solution

- SNP proposed a data warehousing solution for SVHP, which was entirely based on the Microsoft Azure PaaS (Platform as a Service) services.
- Using the Agile methodology and scrum process for execution, the SVHP team had insight, visibility and input into the solution in the early stages of development.
- The solution was designed to allow users to configure source data as an input for any xls, .xlsx, .xml, CSV, txt etc., row data file from various sources (payer contracts) to a centralized warehouse.