INTELYCARE GROWS 300% DURING COVID AND SAVES $1M IN MARKETING SPEND WITH HIGHTOUCH, SNOWFLAKE, AND FIVETRAN

SOFTWARE

IntelyCare™

COMPANY	IntelyCare
LOCATION	Quincy, MA

SNOWFLAKE WORKLOADS USED

COLLABORATION   DATA ENGINEERING   CYBERSECURITY   DATA SCIENCE & ML   APPLICATIONS

DATA WAREHOUSE   DATA LAKE   UNISTORE

Often described as the Uber for nurses, IntelyCare is a leading tech-enabled nurse staffing platform for healthcare organizations across the United States. Founded in 2016, IntelyCare is an AI-based platform that automatically schedules and matches nursing professionals with open assignments at over 2,000 nursing homes across the U.S. IntelyCare provides thousands of credentialed nursing professionals to help on a per diem basis so nursing homes can fill critical open shifts and easily manage full-time and part-time staff with flexibility.

CHALLENGE:

- Improving query performance, establishing a single source of truth, and unlocking data access
- Delivering personalized experiences to thousands of users to drive engagement and ongoing satisfaction
- Building a data stack that could meet the elastic and growing requirements of various business teams
- Optimizing facility/nurse matching based on changing demands and COVID symptoms

The first five to 10 shifts for a new customer are extremely important. A single bad experience can result in losing a customer indefinitely. Since the availability and market demand of IntelyCare nurses are constantly changing, prices and shifts need to update in real time within the app. During COVID, data accuracy was paramount.

> We faced a real risk of propagating COVID to the most vulnerable people if our data was not trustworthy. Hightouch, Snowflake, and Fivetran are absolutely vital to our core data operations."
>
> **—BEN TENGELSEN,** VP of Data Science at IntelyCare

SOLUTION: Snowflake, Fivetran, and Hightouch

Snowflake

With a decentralized data stack built on top of various MySQL databases, IntelyCare was struggling with analytics performance. A single query could create production-level incidents or even bring down IntelyCare's reporting tool.

"We'd try to run these really big, expensive queries, and our engineering team would just look at us and wonder why we were sucking all the life out of our databases," IntelyCare's VP of Data Science, Ben Tengelsen, said.

IntelyCare also needed a centralized platform to consolidate all of its disparate data sources into a single location. In search of a scalable solution that could meet the company's needs, IntelyCare implemented Snowflake.

With Snowflake, IntelyCare is no longer at risk of damaging application databases and the analytics team can run large queries without butting heads against the engineering team. Snowflake saves IntelyCare's engineers countless maintenance hours—which translates into an estimated $520,000 in cost savings annually.

"We evaluated other options, but Snowflake was the best at saving the most human time. Everything just works because Snowflake optimizes everything in the background," Tengelsen said.

Using dbt with Snowflake, IntelyCare has also been able to create an analytics back end that is searchable, tested, and thoroughly documented, and obeys a strict set of naming conventions so that data is easy for end users to find and understand. Every dashboard and algorithm goes through the dbt curated tables so that data-quality issues are monitored and easy to remediate.

"The gains from having clean and organized data to use are staggering. We estimate we save a day per person per week across the data team by having clean data in Snowflake ready to use anytime we need," Tengelsen added.
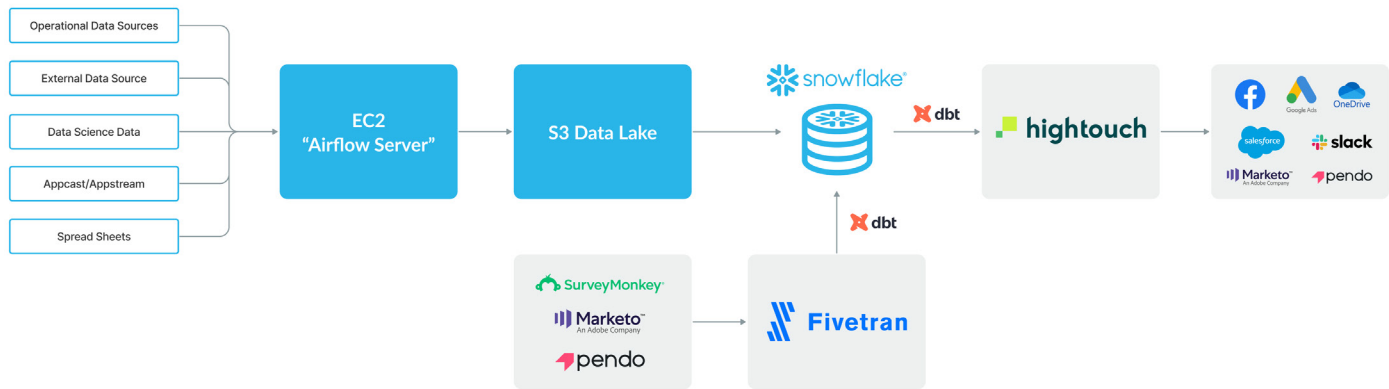
IntelyCare's Data Stack

The fact that all of this data is readily available in Snowflake means that IntelyCare can generate optimal prices and shifts based on changing market dynamics in real time—and this is only possible with Snowflake.

"We were able to grow like crazy all through the pandemic. Snowflake lets us adjust our prices and shifts in real time in every city," Tengelsen said.

Fivetran

However, there are some data sets that are tricky due to third-party API constraints. Rather than spending countless hours trying to figure out how to pipe this data into Snowflake, IntelyCare uses **Fivetran's fully managed connectors** to ingest data from Marketo, Pendo, and SurveyMonkey.

"It could take weeks or months just to get data into Snowflake and we'd spend even more time later on anytime an API changed. With Fivetran, we have access to our data immediately and we don't need to have senior engineers managing in-house pipelines. That's a huge cost savings for us," Tengelsen explained.

Fivetran not only saves IntelyCare months of engineering time, it also makes it easy for the data team to join various tables and data sets.

"There's a lot of hype around Fivetran on how you save a ton of engineering time—and that's all true, but the really great thing about Fivetran is that the tables it organizes are so much better than anything you get directly from third parties. Fivetran is built with data analysts in mind." —Ben Tengelsen, VP of Data Science at IntelyCare

Hightouch

With so much detailed customer data now available in Snowflake, IntelyCare wanted to **activate** that data in downstream business tools, build personalized experiences, and mitigate the risk of COVID for both nurses and facilities. Sending data downstream, however, was challenging and building **Reverse ETL pipelines** was no easy feat.

"We used to have a pod of integration engineers whose sole focus was piping data out of our MySQL databases to all of our various destinations. Now, we're able to use Hightouch for 90% of our use cases and this has freed up our integration team to focus on other things," Tengelsen said.

Before Hightouch, every time the marketing team had a question, they had to request a manual CSV file. Sending personalized emails in Marketo was basically impossible and retargeting users in ad platforms was a nightmare. Using Hightouch Audiences, a visual segmentation builder, IntelyCare's business teams are able to self-serve and build/manage cohorts in a nontechnical way.

"One-third of our Hightouch users are on business teams like marketing, support, and sales. They're able to build audiences without ever having to interact with the data team. Hightouch is powering audiences for emails, texts, in-app messages, and even ad retargeting across Google and Facebook." —Ben Tengelsen, VP of Data Science at IntelyCare

IntelyCare's app is the lifeblood of the business, so building personalized experiences for each individual is key to keeping users on the app. Using Hightouch to power pop-ups and surveys, IntelyCare has been able to increase controlled experiments by 700% and encourage more nurses to complete shifts.

"We ran an experiment around first-shift bonuses and followed different test groups through the application process to see how much the bonus influenced shift completion rate. Without Hightouch, this experiment cost us $1.3M. With Hightouch, we're able to intelligently target applicants and achieve the same incremental gains at an annual cost of $260K," Tengelsen said.

Hightouch also allows IntelyCare to get the most out of its predictive algorithms. The data team maintains models for predicting customer lifetime value, cancellation events, churn likelihood, and local demand and supply metrics.

RESULTS:

- Over $1M saved annually in marketing spend
- $520,000 per year in cost savings
- 360% year-over-year growth between 2020 and 2021
- Engineering time reduced from weeks to days
- Controlled experiments per year increased from ~6 to 50+
- Increased new-nurse retention rate by 70%
- Lowered canceled shifts from new nurses by 25%
- Prevented COVID-19 transmission among nurses and patients
- Eliminated CSV files

FUTURE:

IntelyCare is always working to improve and maintain its data infrastructure. The past year has paved the way for some huge improvements, but there's always more to do. Thanks to Hightouch, Snowflake, and Fivetran, IntelyCare is able to surface more insights, and over the next six months, the company has many green-field projects slotted to mitigate clinical risk, optimize shift-related marketing, and make it easier for nurses to find shifts that match their interest.

"Hightouch, Snowflake, and Fivetran are a force multiplier. Everyone is more effective with our new data stack. Word got out that we can send data from our data platform to just about anywhere and our business stakeholders have lined up," Tengelsen concluded.

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