PDX Inc., provides healthcare technology to pharmacies and pharmacy chains across the United States. Its products and services—including those from its affiliates Rx.com and NHIN—enable pharmacies to process prescriptions, manage reconciliation and adjudication, store and provide access to healthcare records, offer store-based mail order, improve patient outcomes, and help pharmacies remain competitive and compliant with industry needs and standards.

10,000 or more pharmacies use one of two main PDX® pharmacy systems: the PDX Classic System or the Enterprise Pharmacy System (EPS). As part of a major growth initiative, PDX wanted to monetize and deliver value added analytics from these two systems to its pharmacy customers, thus providing them with a better picture of the patients they serve.

The challenge was to build a scalable and flexible analytics service, using data from various systems, that could be easily delivered to pharmacies across the country. PDX processes 5 million new or changed healthcare records in any given day.

PDX had an existing data warehouse based on legacy database vendor and Hadoop. But this existing environment posed a number of data processing and analytics challenges for PDX in relation to its new initiative, including:

- PDX had no way to analyze data across multiple pharmacies or across an entire pharmacy chain.
- As a healthcare company, PDX needed to comply with strict HIPAA requirements for patient data security and privacy - without sacrificing performance and ability to meet SLAs, not possible in current setup.
- The existing infrastructure lacked the performance to process large amounts of data. The only way to speed the performance of the legacy database system would be to purchase additional, very expensive, server equipment. For example, PDX might have to wait a week for 3 billion records to process.

PDX needed a better way to not only process its huge volume of data securely, but also enable the data to be analyzed to extract meaningful business intelligence.
WHY SNOWFLAKE + LOOKER

PDX set up a proof-of-concept (POC) competition to find a new data warehouse and analytics platform. Snowflake was going up against legacy on-premises database platform, a Hadoop based solution and other cloud based data warehouse. Within a week of starting the POC, the Snowflake team was ingesting data into the cloud-native data warehouse and analyzing it. Meanwhile, the Hadoop and other data warehouse teams spent at least three weeks trying to stand up the environments, let alone analyzing the data. At the end of the POC, the clear winner was the Snowflake platform.

For BI side of the POC, PDX compared Looker to other popular visualization tools. Looker was able to achieve the desired query performance while needing only half the size of the Snowlake warehouse compared to other BI tools, due to writing efficient SQL and avoiding unnecessary joins. The PDX team also liked that Looker has an in-database application layer. This meant that as their data grew they would simply increase their Snowflake warehouse, without needing to scale the BI side separately.

Overall, the Snowflake Elastic Data Warehouse enables PDX to analyze its data securely, faster, more easily, and with greater agility leveraging its new data-driven capabilities to add revenue streams from new business models.

“We feel very confident that whatever we run into, we will be able to scale the Snowflake solution to meet the performance requirements of our pharmacy customers.”

— John Foss, Director of Business Intelligence and Manufacturer Reporting at PDX
HOW PDX USES SNOWFLAKE + LOOKER TO BUILD ANOTHER DATA-DRIVEN REVENUE STREAM

Implementing Snowflake and Looker has delivered a number of business benefits to PDX

**Management**
Eliminating the distractions of managing infrastructure, tuning knobs, or data warehouse management. All of this without hiring expensive resources.

**Security**
Providing a HIPAA Compliant environment where data remains encrypted throughout the entire process. Delivering security at the application layer without diminishing performance.

**Scalability**
Scalability is easy today, against buying large capacity up front. Plus each time new customers are added to the service, PDX can scale the environment, and revenue from these customers is tied directly to usage.

**Performance**
Snowflake allows customers to run reports without taxing production systems, and managing workloads between BI users and data loading operations.

**Driving Revenue**
Adding an entirely new revenue stream as a data analytics solution provider for pharmacies throughout the country.