

Secure and reliable access to IoT devices data in healthcare

At A Glance

Challenges

- Correct functioning of IoT devices
- Secured access to the data

Benefits

- Increased productivity in the field
- Reduced the risk of data breaches

About The Client

A global healthcare company that provides medical products and services to patients around the world, operates a network of clinics and hospitals that offer a wide range of medical treatments and therapies.

Client Need

- Ensure correct functioning of IoT field devices
- Insights into erroneous signals causing alarms to sound even in the absence of treatment
- The need to provide access to IoT devices data on Amazon S3 buckets
- Ensure confidentiality and HIPAA compliance of patient health information

Our Solution

- Innova Solutions suggested adding Snowflake to the client's data technology stack to extend the existing Amazon S3 data architecture
- Innova had prior experience in proposing and implementing the data architecture for the S3 data lake, making them well-equipped to implement the Snowflake Data Cloud's capabilities
- AWS Glue was utilized to integrate with Snowflake and move data between platforms
- Internal views and external views were created using Snowflake
- Field access to the full data set, including PHI, was provided through internal views
- External views were made available to the research team by de-identifying PHI data through expert determination and leveraging Snowflake's data sharing functionality
- Data sharing was done directly with the research team, avoiding the need for multiple data pipelines.

Key Benefits

- Increased research team's operational efficiency by 70% by identifying error rates in clinical data and IoT metrics
- By updating the machines without affecting the core patient use case, customer satisfaction increased by 55% and productivity improved by 40%
- Over 25% cost savings by our future proof multi-cloud solution enabling data sharing across multiple clouds
- Sensitive data could be masked without being tangibly moved to other downstream data systems, reducing the risk of data breaches
- Enhanced Innovation & reduced time to market by 50% by integrating heterogenous, structured & unstructured data for research team.