

# Incision Group B.V. Netherlands Case Study



## Summary

[Incision](#), based in Amsterdam, the Netherlands, enables various healthcare organizations to support their medical teams with learning and performance enhancing products.

Incision's two main products are [Incision Assist](#) and [Incision Academy](#).

- Incision Assist consists of a Content Management System (CMS) and an accompanying mobile app, both for Android and iOS. This product enables healthcare workers to easily document and manage protocols, find surgeon-specific information, accurately prepare and align with team members before a surgery.
- Incision Academy is a product that supports the ongoing education and training of entire OR teams and is widely used by universities. With over 500 high quality video courses, a step by step methodology and 3D anatomy, it enables the acquisition of skills needed to perform well in the operating room.

## Helping Healthcare Organizations Digitize and Learn

Currently, to gather information, most scrub nurses in hospitals still use pen and paper, pictures on smartphones, PDFs and other means that are prone to being outdated, have no single source of truth, and are difficult to share. As the nature of the information that they need to use in their job is time sensitive and must be correct, more and more healthcare organizations see the value of digitizing this process. This is where Incision Assist helps by managing protocols, providing information for getting the OR ready, finding surgeon preferences and other time sensitive information.

Some of the challenges OR teams face are frequent team rotations, lack of standards, limited risk management and a limited time to educate and train staff.

Incision Academy can help address such problems by providing e learning functionality and content that is tailored to healthcare roles such as scrub nurses, nurse anesthetists, residents, and surgeons. Some of the solutions include high quality courses, 3D anatomy models, step by step learning, just-in-time learning for efficient OR preparation, tests, certificates, dashboards and so forth.

Over the past three years, Incision's need for cloud services has only increased as a result of scalability and performance needs. Incision had the need to record user events to gather valuable data about how the products were being used and which courses were popular so they can provide more useful and interesting content. Also, Incision's customers requested reports on their users' learning habits on the Incision Academy platform.

Incision is devoted to continuously improving its products based on user feedback and data analytics.

## About Incision

# INCISION

<b>Company:</b>	Incision Group B.V.
<b>Industry:</b>	Healthcare
<b>Country:</b>	Netherlands
<b>Employees:</b>	51-200
<b>Website:</b>	<a href="http://www.incision.care">www.incision.care</a>

**Improving surgical performance with platforms that support an entire Operating Room (OR) team to learn and perform better.**



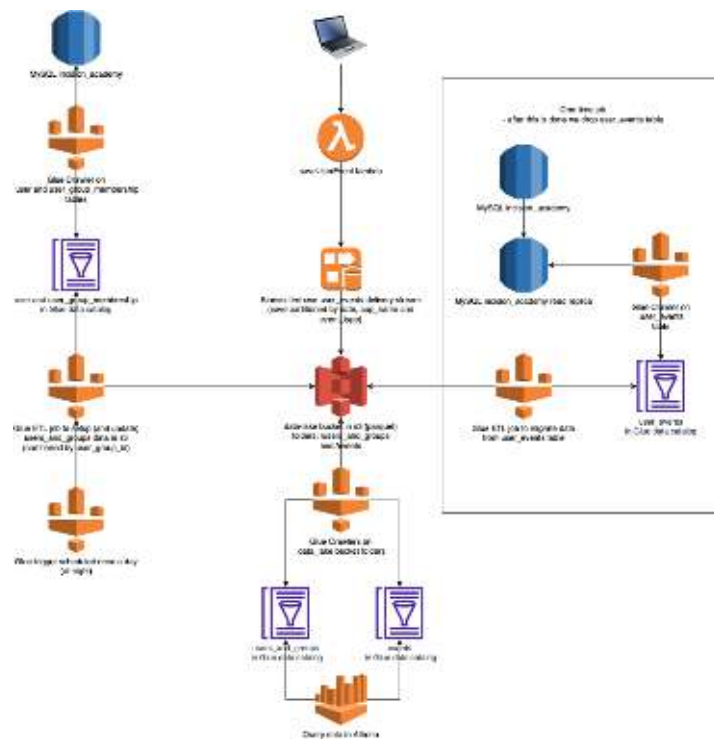
## Building a data lake and improving data analysis

In the beginning, while Incision was still in a startup phase, and its products user pool was limited, user events tracking on web apps was done by storing the events in a MySQL [AWS RDS](#) database. As the product became more used and attracted more customers and individual users, performing data analytics activities proved difficult since data was not stored in a way that would allow these activities to be performed efficiently on a constantly growing data set. In response to this, we decided to implement a data lake with [AWS S3](#) and [AWS Athena](#). This translated in an easier and more scalable way for Incision to not only generate reports for customers about their usage of Incision products but also get insights on how to improve the products.

Apart from S3 where the data is stored and Athena from where reports are generated, [AWS Kinesis Data Firehose](#) is utilized for storing and partitioning the data to an S3 bucket, as well as [AWS Glue](#) for crawling the data and migrating old data from the MySQL RDS instance.

### Serverless, future proof solution for data analytic needs

Incision can now support a huge increase in the number of user events by relying on a serverless, scalable solution. Generating reports is no longer done on a production RDS instance, which also mitigates risks of affecting our application performances.



### About Levi9

[Levi9](#) is a nearshore technology service provider with around 1200 employees and 65+ customers. We specialize in custom made business IT – 95% of our work is on the revenue side of our customers. This is where time to market, high productivity, stable team velocity, and great quality through automation, agility, intensive interaction and understanding matter most.

