

Nissin Leverages Generative AI and Develops a Data Integration and Analysis Platform

HULFT Square ensures the scalability of data integration with a wide range of connectors

NISSIN FOODS Group is a leading "EARTH FOOD CREATOR," continuously innovating food culture while addressing social challenges and contributing to a better world through the enjoyment of food. Based on the spirit of founder Momofuku Ando, who invented instant noodles such as Chicken Ramen and Cup Noodles, the group's focus is not limited to the instant noodle business but on expanding globally into non-instant noodle products such as chilled noodles, frozen noodles, beverages, and snacks.

One initiative is to establish a foundation that contributes to data-driven management, and to achieve this, Nissin is establishing a data integration/analysis platform. HULFT Square, a cloud-based data integration platform (iPaaS), is the data integration platform that aggregates partially optimized data from each system and inputs it into a Snowflake Data warehouse.

Building a data integration and analysis platform and consolidating data sources

In 2022, the company set five key digital initiatives for 2030: Cybersecurity, global IT governance, support for digital use in business departments, use of advanced networks/mobile devices, and the establishment of a foundation that contributes to data-driven management. The Data Science Office of the Information Planning Department of Nissin Food Holdings Co., Ltd. is working on establishing a foundation that contributes to data-driven management, which is one of these initiatives.

"We are working on establishing a data integration/analysis platform so that we can get to the starting line as a data-driven company before 2025. Specifically, we are promoting three activities: consolidating various data sources in one place, distributing them to business departments so that they can use them in their work, and increasing the number of people who understand by improving employees' IT literacy," explains Yoshihiko Itagaki, Head of the Data Science Office.

"In order to use data for decision-making, it is necessary to cross-reference various data and optimize the whole process," says Kazuyoshi Yamagata, a professional in the same department. In addition to Nissin's food production and sales, the company's major business processes include shipping products, delivery to wholesalers and retailers, and sales centered on POS data at stores, and these are operated by individually optimized systems into one Data warehouse.

Customer Requirements

- Unite data from partially optimized systems in a data warehouse to support data-driven management
- Seamless application integration for HR, production, logistics and other business systems
- Enable real-time business insights with business intelligence and AI technologies

HULFT Square Implementations

- iPaaS that delivers data into Snowflake Data warehouse
- Business application integration for HR and other enterprise systems

Results Summary

- Enhanced data-driven decision making
- Reduced data acquisition work by 60%
- Enterprise-wide data collaboration between Nissin departments through unified and shared data

Therefore, in order to expand data utilization throughout the company, the company decided to start developing an environment to collect this data and consolidate it into one data warehouse.



Yoshihiko Itagaki (left) and Kazuyoshi Yamagata (right) from Nissin's Data Science Office

Evaluating HULFT Square for its effective wrapping of data integration technology and proven track record in data integration

One of the data integration methods that caught the company's attention as a cloud-first company was iPaaS, which allows data in multiple systems to be integrated on the cloud. "One requirement was integrating with one technology, product, and service. We also needed something with a full range of connectors for external integration so that even a business company like us could implement development," Yamagata said.



Kazuyoshi Yamagata

While thoroughly considering a data warehouse as a data aggregation box and an iPaaS as a pipeline for data integration, the company set its sights on HULFT Square, a data integration platform provided by Saison Technology. "We had a track record of using HULFT internally for file transfers, and we recognized that it was a service that guaranteed a certain level of quality in terms of data integration.

"They also have a wide range of connectors, so we felt they could trust them," said Itagaki. He also said that it was important that they had the technical capabilities to link with Snowflake.

Another attraction was that the functions required for data integration were neatly wrapped as a service. "The fields of data science and data analysis require a lot of things, from knowledge of IT infrastructure to the ability to communicate with business departments, so it has a strong mixed martial arts aspect to it. To be honest, it's hard for members who are good at analysis to catch up on the IT infrastructure field, but HULFT Square has neatly wrapped the technology. Not only does the GUI make it easy to visualize the process, but it can be developed without coding. The low barrier to entry was a big factor," Yamagata said.

The Data Science Department aims to train new employees by providing them with opportunities across a wide range of phases, from dialogue with the business department to development and subsequent improvement activities, but it is difficult for new employees to master all of the necessary skills.

The Nissin team expects that HULFT Square will reduce their requirements, creating an environment where new employees can become valuable assets more quickly.

"We wanted to work on the project with a company that could understand our ideas and accompany us. In that respect, Saison Technology is partner, not only for data integration, but also for sharing their in-house expertise regarding the use of generative AI that we are currently working on," Yamagata emphasizes.

HULFT Square contributes to establishing a foundation for data-driven management, including expertise on generative AI

Currently, data is collected from SQL Server, where data from business systems is stored, and Amazon Redshift, a cloud data warehouse. HULFT Square is used as a pipeline to Snowflake, a cloud-based data warehouse. An interface has been built using HULFT Square to aggregate data from approximately 10 systems, mainly core systems, into Snowflake. In some cases, around 20GB of data is exchanged daily. "As for the company's personnel system, we have been using Saison Technology solutions to connect with various systems internally for some time, so we connect it to HULFT Square via HULFT," explains Yamagata.

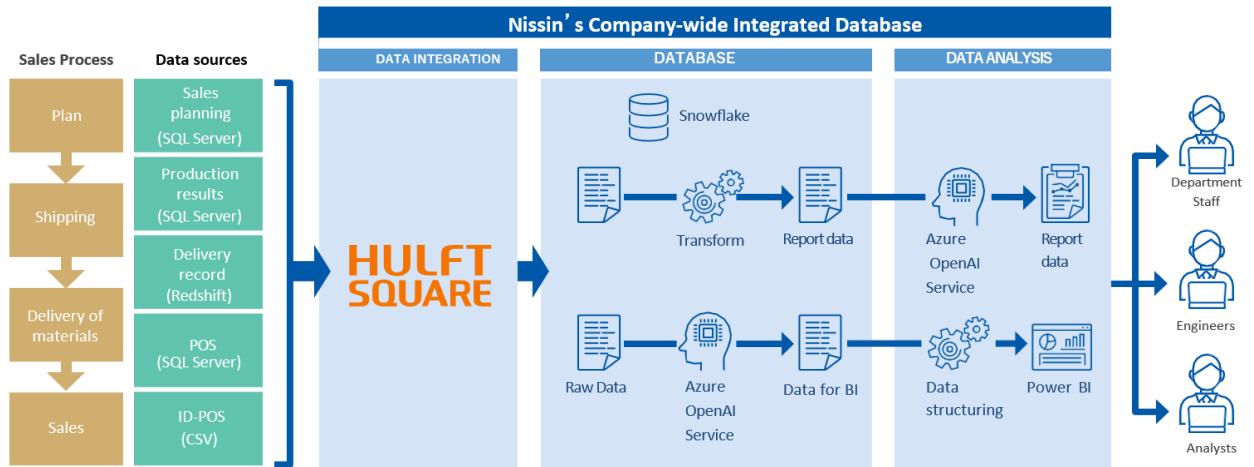
Data stored in Snowflake is viewed on-site mainly using Microsoft's Power BI, and the scope of data utilization is expanding. "In terms of Power BI, the number of in-house development users has increased by more than tenfold in about six months, and the number of reports created has increased by more than threefold. This increase shows that data utilization is progressing in various situations," Itagaki analyzes. Power BI itself is linked to systems other than Snowflake, and HULFT Square is contributing to revitalizing data utilization with Power BI.

The company introduced HULFT Square around 2022, initially starting with a dashboard that visualized the cost status of materials and demand to optimize material procurement.

"We've reduced data porting time for Power BI by 60%. HULFT Square substantially improves the speed at which we handle and analyze data."

--Kazuyoshi Yamagata, Nissin Data Science Office

Nissin's data-driven intelligence footprint



Since then, Nissin has steadily expanded the scope of data integration through collaboration with sales, marketing, and supply chain teams. Now, the system is used not only to confirm sales and internal performance figures, including profits for each client, but also to visualize financial reports with Power BI, making it an essential information source for discussions during meetings.

The data integration/analysis platform is also being used in situations where generative AI is incorporated into data processing for business use, such as using data accumulated in Snowflake and using generative AI in the background to output new insights. "We are also conducting verification tests to input unstructured data such as the results of product surveys into Snowflake, analyze it with generative AI, and provide the results of quantitative analysis to the marketing department. In the near future, we plan to fully provide it to the field as a product," explains Yamagata.

Regarding generative AI, it is being considered to expand the scope of creative work, such as considering actions after analysis, so that even members who are not familiar with the system can explore data in natural language, and HULFT Square will be used for part of the data collection required for generative AI.

Previously, it was necessary to download the necessary data from core systems using Excel, and then input and analyze that data in Power BI, but now, by building Power BI using data collected in Snowflake from each system as the source, it is possible to view and analyze the data. "The time it takes to input data into Power BI has been reduced by about 60% compared to before, and HULFT Square has been a great help in streamlining the process," Yamagata said.

They also see a secondary effect of encouraging collaboration between departments centered around data, and reducing waste in the use of internal resources by being able to use the same information source. "I have the impression that data is breaking down organizational barriers, such as by consolidating scattered information and revitalizing communication. The data linkage/integration platform will also be useful in fostering the data-driven culture that we are aiming for," says Itagaki. HULFT Square is indeed contributing to the creation of an environment that aims to be 'data-armed.'

Regarding HULFT Square, the GUI makes it easy to implement data integration processes, and the abundant connectors have made a remarkable advance in the speed from initial verification to pulling data into the Data warehouse. "In terms of stable operation, it works at a level that we don't have to worry about, and we highly evaluate its stability as a high-quality service. Another advantage is that the data pipeline is stable, allowing us to allocate resources to checking specifications on the core system and designing data integration," says Yamagata. At the beginning of the launch, there were many opportunities to contact support, but he also praised the support department's response, saying that the quick response and high-resolution answers made it easy to solve the problems.

Saison Technology not only provides support for data integration through HULFT Square, but also for the use of generative AI within the company, which the company says was a major catalyst for promoting generative AI. "When we asked Saison Technology to tell us about their efforts to use generative AI within the company, they gladly accepted, and we had regular meetings to learn from them. Without this, I don't think we would have made this much progress in using generative AI," Itagaki said of the service.



Yoshihiko Itagaki

Yamagata also commented, "They gave us detailed guidance on how to visualize data and deliver it to users, including construction points, using examples from within the company. In particular, they provided us with solid feedback on the importance of neatly formatting data before inputting it into generative AI, which was very helpful. HULFT Square was also useful in verifying how to pull in data from upstream." Saison Technology's support and HULFT Square contributed to the company's goal of building a foundation for generative AI use.

Nissin intends to expand data sources further with HULFT Square

Going forward, they plan to further utilize HULFT Square as a data integration platform when expanding the data sources required for data analysis required in the field. "Because it allows for simple development of data input into DWH, we are looking forward to seeing it expand horizontally as well," says Yamagata. In terms of areas of use, data utilization is expanding into sales and marketing, as well as R&D areas such as materials and product development, and they would like to continue expanding it as a central platform for this purpose.

One of the biggest advantages will be its use in the marketing field, where data analysis is particularly essential. "Until now, we as the systems department had almost no contact with the marketing department, but since this is a field that requires data, this data integration/analysis platform is a perfect fit. We would like to continue to pull in the data that the marketing department needs into HULFT Square, and create an environment where data can be used even more than ever before," says Itagaki enthusiastically.

Ultimately, they would like to create a world where the data collected by HULFT Square and stored in Snowflake can be freely accessed and utilized by end-user business departments. "For example, if Power BI could be viewed directly during a meeting, it would eliminate the need for junior employees to create materials. Moreover, having all members, including superiors, come into contact with Power BI during meetings would also contribute to the development of digital talent. That is the kind of world I would like to create," said Itagaki, talking about his vision for the future.

About HULFT Square and Saison Technology International

HULFT Square is an innovative iPaaS solution that enables businesses to manage, develop, integrate, and secure data and applications across any cloud or on-premise location. It enables data intelligence via faster workflows intelligent recommendations that require less human intervention, and this accelerates the process of cloud migration with 50+ connectors and integration components to key AWS services like Amazon S3, Redshift, RDS, Aurora, Kinesis, EMR and SageMaker.

Saison Technology International helps global enterprises move critical information, streamline data flows and automate processes to instantly put knowledge where it is needed. Knowledge empowers people, inspires strategy, transforms business and markets. In the right hands, in the right place, it is much more than a set of facts. Knowledge is a force that can inspire innovation, drive profits and affect positive change.

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Visit: www.saison-technology-intl.com

Email: salesop@saison-technology-intl.com

Call (855) 815-1518

[Saison Technology's North American Global HQ](#)

400 Concar Drive -- San Mateo, CA 94402

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