

In conversation with

# The Industrialist

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Finding the way forward to supply chain innovation

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# IGNITING A SUPPLY CHAIN REVOLUTION

A 50-billion-yen pharmaceutical logistics initiative from Nippon Express could help transform supply chains across industries - for the better. **Chief Operating Officer and Representative Director of Nippon Express Co. Ltd, Takaaki Ishii** explains how the global logistics company is harnessing data to deliver targeted, intelligent solutions for clients. And these transformative innovations could not come soon enough.

Quality control has always been integral to the pharmaceutical industry, where the slightest temperature fluctuations can rapidly degrade sensitive goods. But Nippon's new initiative goes beyond controlling the physical environment and answers the needs of a global system under pressure. The company is using blockchain technology to store real-time transit data that can be accessed at any time, to help detect fluctuations in the supply and demand of goods. It means customers will have the ability to respond to crises or unexpected peaks in demand as they happen.

In its development of this ground-breaking initiative, Nippon has found a way to make its world-class supply chain even more agile and efficient - and ready for any unknowns ahead.



## Give us one word that describes you the best.

**Unshakable!** I am always looking to the future we want to build for Nippon Express, and how to get there. Whether through new technologies or building the right team for the job, that focus drives everything I do and inspires me every day to keep ahead of the curve, and get the job done.

## Can you tell us about your role and journey with Nippon Express, and share your proudest innovation story to date?

I consider my mission is of two parts, first to drive operational excellence, and second to ensure the growth agenda for Nippon Express is achieved. At the same time, I focus on helping to build a more sustainable society by addressing societal challenges and adding new value by leading through innovation. I have led the biggest organizational transformation in the company's 53-year history, and have also tackled the transformation of the ocean freight business. To think outside the box and implement new ideas and methodologies is easier said than done, but I consider my role and actions are proof that it can be done.

## Nippon Express is developing a new supply chain network as part of a 50-billion-yen initiative. How did this come about, and how will it help transform the industry?

Pharmaceuticals can literally be life-saving. And many factors can affect

their quality during transport and storage - temperature being one of the most important. Nippon Express has long served the needs of the pharmaceutical industry by providing optimized logistical services that are both safe and dependable. The challenge we are taking on now, however, goes beyond any one industry and is more comprehensive in scope. This transformational initiative was sparked by the Japanese government's December 2018 announcement of the new Good Distribution Practices (GDP) guidelines. These will bring Japan into line with the World Health Organization (WHO) standards for pharmaceutical distribution, from shipping to delivery. The new supply network we're developing will establish a best-practice quality control system based on GDP, as well as the global trends that have been influenced by GDP.

## How will this new supply chain model differ from a traditional approach?

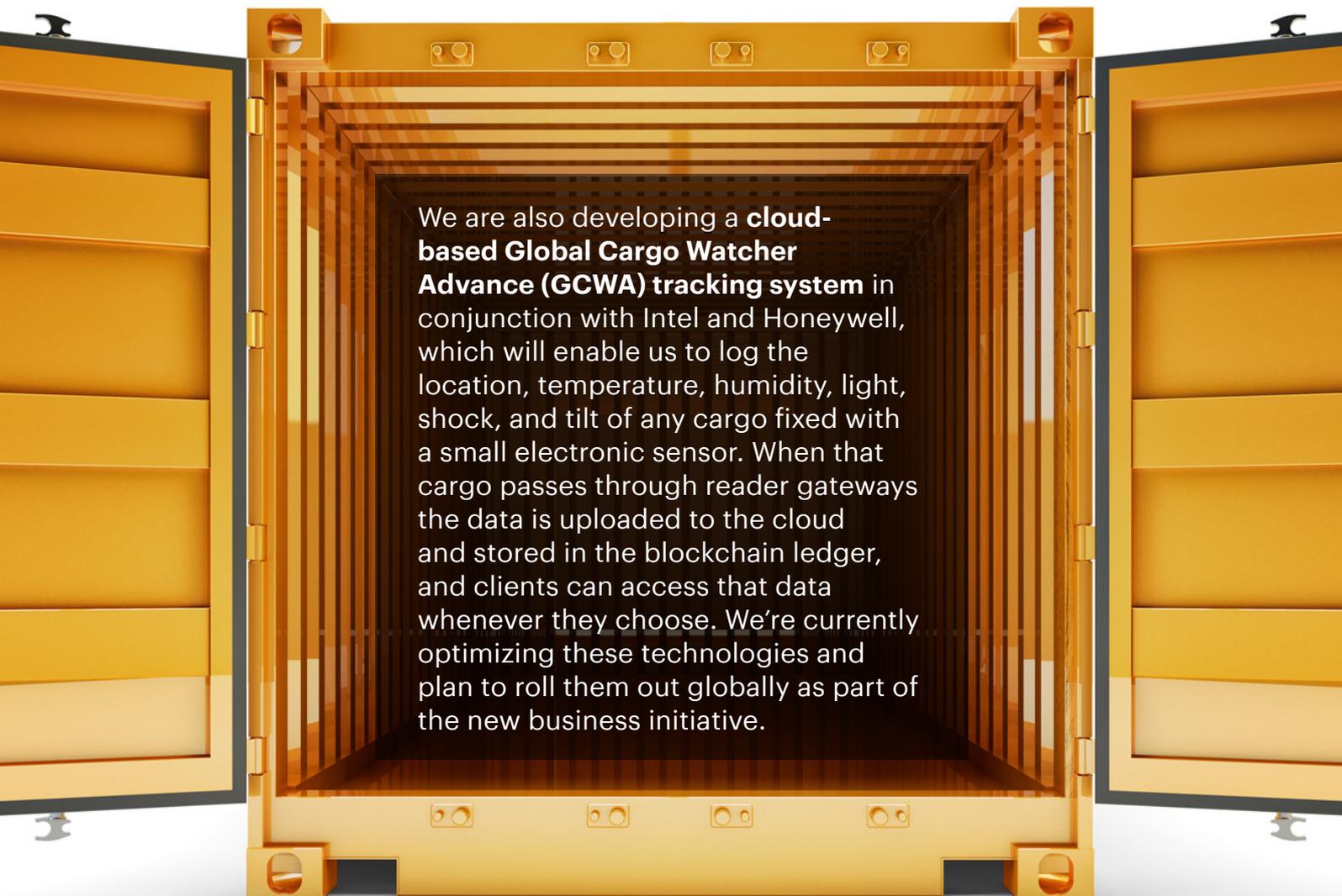
The new system integrates business continuity planning (BCP), taking into consideration its relationship with pharmaceutical supply. In the past, we worked with each client on an individual basis to establish protocols for the shipping and warehousing of their pharmaceutical products. Under our new plan, however, we will put in place a unified platform for all our clients that will significantly increase operational efficiency and reduce costs. The key to our success in this initiative is in harnessing the enormous power of integration and technology to achieve transformative results.

## How does the system ensure end-to-end quality across the supply chain?

Nippon Express has used Narita International Airport and Kansai International Airport for a long time as medical hubs for importing and exporting pharmaceuticals and the raw materials used in their production. We will now be establishing four new warehouses in the Kanto region, where Narita is located, and in the Kansai region, Toyama Prefecture, and the island of Kyushu. These will be completely new facilities, compliant with the GDP guidelines and serving multiple pharmaceutical companies. As part of our business continuity planning, most of them will feature

aseismic base isolation to protect them from earthquakes, and we plan to have all of them operational by January 2021.

One technology that will help us mitigate the risk of non-conforming temperature is centralized management of temperatures in all warehouses. We'll also be continuously recording temperatures throughout the shipment cycle and for every process right across the supply chain. We are establishing a system to monitor all this data simultaneously and allow our customers to access their information in real time via the cloud.



We are also developing a **cloud-based Global Cargo Watcher Advance (GCWA) tracking system** in conjunction with Intel and Honeywell, which will enable us to log the location, temperature, humidity, light, shock, and tilt of any cargo fixed with a small electronic sensor. When that cargo passes through reader gateways the data is uploaded to the cloud and stored in the blockchain ledger, and clients can access that data whenever they choose. We're currently optimizing these technologies and plan to roll them out globally as part of the new business initiative.

## Where else in the supply chain will technology help enhance efficiency?

We are taking a close look at export and import procedures and the issuing and receiving of orders.

**To make our plan a reality, we are collaborating with a wide variety of organizations, airlines, airports, and shipping forwarders. Along with digital management of logistics resources, we are addressing the challenges of digitalizing customs declarations and mitigating risks of data breach associated with automating the flow of information. As a logistics company, our mission is to create a new standard for the quality and efficiency of all work associated with distribution.**

## Resilience in the supply chain is more important than ever today, and Nippon Express has been delivering a world-class logistics service since 1937. What is the key to continuity?

Continuity requires us to always be a few steps ahead - which is where innovation comes into play. And innovation, for us, is synonymous with collaboration. Without great partners and great technologies, our innovation journey would be far slower.



Bringing in the right technology partners at the right time has been fundamental to our success in providing customers with peace of mind and a seamless service that is always ahead of the pack. It has enabled us to significantly improve quality control in pressured environments, all while keeping costs low. By bringing together different strengths and technologies, we have been able to **find the way forward** and dramatically evolve the supply chain landscape in a way that always puts the customer first, and in control.

## How does transforming the supply chain in this way help grow your business?

Nippon Express is continuously striving to grow in three key areas - the customers and industries we serve, our own businesses, and geographically. One part of this strategy is optimizing our services to match the needs of each of our customers. We're currently placing particular emphasis on putting customers right at the centre of service design and development. For example, in the business segments of land, sea, and air transport, we are offering our customers a logistics management solution that encompasses both an optimized, integrated transport model and inventory management. Going forward, we need to deliver a complete service package that takes into consideration all the needs of our customers - whether these have yet to emerge or are currently not being met. The advanced supply network we are developing now will be the foundation.

## How is data gathering transforming the supply chain across industries?

Accumulating shipping information data gives us the opportunity to propose new solutions to our customers. In this way, proposing a cooperative delivery system to the pharmaceutical industry will lead, we believe, to changes in the traditional business model, the development of entirely new business segments, and new types of customer relationships. This initiative will eventually help organizations in other industries to increase their operational efficiency through the effective use of data. And this kind of platform is not just for one industry sector - it's something that can dramatically change the entire industry supply chain for the better. In developing this new logistics system, we'd like to promote to the world the strengths that Japanese companies have to offer. I'd like to see this become an initiative of that magnitude.

## What inspires you most?

**Collaboration!** In this world we need to be constantly looking ahead. We are always responding to new advances in technology and changes to the geopolitical landscape, and rapidly evolving to keep pace and deliver at the highest levels. Collaboration - whether with Nippon's own vast pool of experts, or clients that are experts in their field, or ecosystem partners - enables that evolution. And more than that, it makes that journey forward a real pleasure.

**Document sources:**

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**Additional info:**

FT Article - From factory to patient, Nippon Express finds the way  
“Global Cargo Watcher Advance” press release

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