

News Release

FOR IMMEDIATE RELEASE

Hitachi to Develop Digital Infrastructure, Demonstrate Digital Transformation of Postal Services in Vietnam

Hitachi chosen as subcontractor in the Ministry of Internal Affairs and Communications' experimentation to demonstrate the feasibility of introducing Japanese digital transformation practices in with government-run Vietnam Post



Tokyo, July 6, 2023 – Hitachi, Ltd. (TSE: 6501, “Hitachi”) starts the development of digital infrastructure and demonstration of transport digital transformation of Vietnam Post, a government-run company in Vietnam, in preparation for digitalization with a focus on postal services throughout the Socialist Republic of Vietnam (“Vietnam”).

More specifically, this involves the use of Pentaho, an intelligent Data Ops platform (“Pentaho”) and a group of Hitachi software for data management and analysis. As Vietnam Post pushes forward with digital transformation, it aims to build a database to serve as the core of its digital infrastructure. To facilitate the transformation, we, Hitachi, select data about delivery, vehicles, customers, etc. which are dispersed in each of the different operations, to be stored. We also discuss methods for the integration and analysis of data and use cases. Moreover, we use Hitachi’s original CMOS Annealing^{*1} which is referred to as a quantum inspired computing in postal services and transport, its current core businesses. In doing so, we will create optimal delivery plans from the large-scale, complex data and review the streamlining of transport operations.

Based on the above discussion and review, we will build a full-scale database and focus on a broader range of e-commerce businesses as well as streamlining existing operations.

Under Vietnam’s national strategy, Hitachi will contribute to the digitalization of the Vietnamese society as a whole with postal services and transport as the core, by supporting digital transformation of Vietnam Post, the company that handles the country’s digital infrastructure. Hitachi is undertaking this project for the Japanese Ministry of Internal Affairs and Communications, by serving as the subcontractor to experiment and demonstrate the feasibility of introducing Japanese digital transformation practices in research^{*2} conducted by

the Ministry of Internal Affairs and Communications as part of the Infrastructure System Overseas Promotion Strategy 2025.

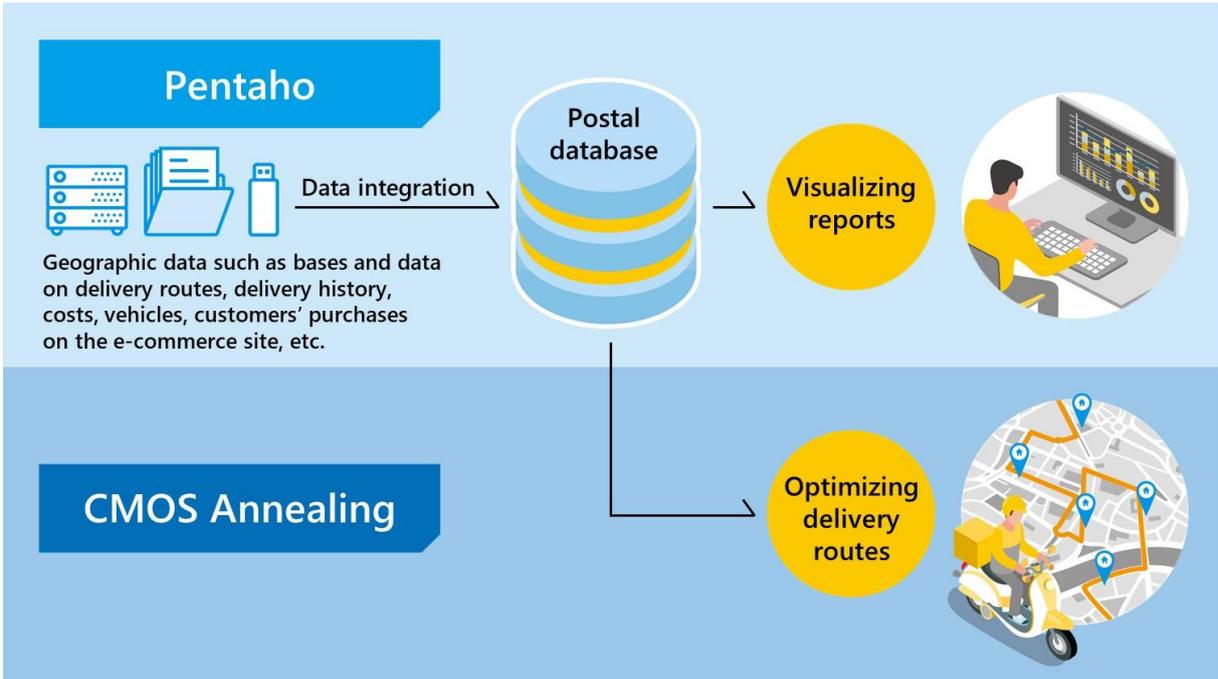
Background

Announced in 2022, under the “Decision 654/QD-TTg which included the Postal Development Strategy to 2025 and orientation to 2030”, Vietnam positioned postal services as infrastructure indispensable for the country and its digital economy, especially e-commerce. It sought to develop a digital society with postal services as the core. Operating postal services in Vietnam, Vietnam Post has 13,000 facilities around the country, including both urban and rural areas, and is closely connected to daily life. For this reason, Vietnam Post is expected to facilitate large-scale, sophisticated digital transformation and to help make people’s lives more convenient.

As part of the Japanese government’s Infrastructure System Overseas Promotion Strategy 2025, Hitachi was chosen as the subcontractor in the research conducted by the Ministry of Internal Affairs and Communications in FY2022. Hitachi spoke with Vietnam Post about the current situations and problems with its digital transformation. These problems were analyzed before developing concrete measures and a roadmap for implementing them. While the e-commerce market is expected to continue to grow in Vietnam, the expansion of e-commerce transactions in agriculture^{*3} is defined as one of Vietnam Post’s priority. Hitachi decided to support this area through the development of databases in existing businesses, as well as transport digital transformation which includes streamlining the delivery process among other measures. Recently, as actual initiatives are introduced, Hitachi was chosen as the FY2023 subcontractor.

In another collaboration, Hitachi worked with Vietnam Post and VietCredit Finance Company, a consumer financial institution in Vietnam, to provide customers individual loans application services with the use of video calls^{*4}. Leveraging the track record and expertise it has built in the country, Hitachi will remain committed to digital transformation in Vietnam.

Overview of the demonstration experimentation



(1) Integrating and visualizing data that are dispersed across different operations, to develop a database to support Vietnam Post's digital transformation

Necessary data obtained from Vietnam Post are selected, integrated, and visualized. The optimal collection, management and utilization of that data are reviewed in pursuit of the development of a full-scale database that will be the core of the digital infrastructure to support digital transformation.

Traditionally, Vietnam Post used individual systems divided into documents and operations to manage a broad range of data, such as geographic data, delivery routes, vehicle data and customers' purchases on its e-commerce website. Vietnam Post had issues centralizing and combining many different kinds of data for analysis and use. In the new project, we use Pentaho, a group of Hitachi software for data management and analysis, to select, integrate and visualize data to be stored. In doing so, we discuss utilization methods such as the collection and management of the dispersed data and the creation of a report geared for deliverers, transport managers, executives and other stakeholders.

This will facilitate data utilization in terms of, for example, the operation of an e-commerce website based on customer data and the optimization of delivery. It will also lead to the service's expansion as a platform to support Vietnam Post's data-driven management.

(2) Optimizing transport operations in pursuit of Vietnam Post's digital transformation

CMOS Annealing enables high-speed searches for an optimized combination from an enormous number of combinations. We use it in transport, the core business of Vietnam Post, to create optimal delivery plans and to streamline delivery by optimizing manpower and transport vehicles, for example.

The creation of delivery plans has conventionally relied on deliverers' expertise and experience. The dependency on individual skills and delivery efficiency needs to be addressed. Using Hitachi's original CMOS Annealing helps to create optimal delivery routes by considering information such as the number of deliverers, the size and number of vehicles, delivery routes and delivery timing.

This will raise customer satisfaction through shorter delivery times, optimise delivery fees and address the expected rise in demand for e-commerce. We will start small and conduct demonstration tests before seeking to roll out the service to all Vietnam Post facilities. Going forward, the operational streamlining will go further to the point that, for example, the most efficient delivery routes calculated with CMOS Annealing are automatically communicated to deliverers for delivery to individuals' homes.

Future initiatives

Going forward, we will build a full database, streamline Vietnam Post's existing postal services, revitalize local communities through the expansion of e-commerce and contribute to the creation of new businesses in cooperation with other industries such as public services and Finance. In this way, we seek to grow as a platform to offer extensive support to people's lives in Vietnam.

With strong focus on Lumada^{*5}, Hitachi will contribute to digitalization in Vietnam by promoting the introduction of Japanese digital transformation practices to the country in cooperation with the Japanese Ministry of Internal Affairs and Communications and related domestic companies.

*1 CMOS Annealing: A new type of computer developed by Hitachi to solve combinatorial optimization problems using the Ising model, describes the properties of magnetic materials.

*2 Undertaking demonstration experimentation on the feasibility of introducing Japanese DX practices which will help the postal service entity of Vietnam to implement a national strategy for the development of postal services.

*3 For example, this involves enabling urban dwellers to buy produce harvested from rural areas with the use of an e-commerce site operated by Vietnam Post.

*4 Hitachi collaborates with Vietnam Post and VietCredit to deploy new financial services nationwide (May 16, 2022)
<https://www.hitachi.com/New/cnews/month/2022/05/220516.html>

*5 Lumada: The name of Hitachi's advanced digital solutions and services for turning data into insights that drive digital transformation of social infrastructure.

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About Hitachi's Global Financial Solutions

<https://www.hitachi.com/products/it/finance/index.html>

About Hitachi, Ltd.

Hitachi drives Social Innovation Business, creating a sustainable society through the use of data and technology. We solve customers' and society's challenges with Lumada solutions leveraging IT, OT (Operational Technology) and products. Hitachi operates under the business structure of "Digital Systems & Services" - supporting our customers' digital transformation; "Green Energy & Mobility" - contributing to a decarbonized society through energy and railway systems, and "Connective Industries" - connecting products through digital technology to provide solutions in various industries. Driven by Digital, Green, and Innovation, we aim for growth through co-creation with our customers. The company's consolidated revenues for fiscal year 2022 (ended March 31, 2023) totaled 10,881.1 billion yen, with 696 consolidated subsidiaries and approximately 320,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.