Hitachi is augmenting and enhancing image analysis and diagnostic features leveraging AI and deep learning algorithms for modality systems, including CT scan, MRI, X-ray, and ultrasound.

Hitachi initially considered using GPU-based systems for the AI enhancements, but a product feasibility study found a negative impact on cost and power/heat dissipation.

Hitachi sought to accelerate development time by leveraging AI and targeting smoother integration and fusion of AI and non-AI algorithms by Intel® Distribution of OpenVINO™ toolkit.

—Tomohiro Nagao, Senior Manager, Solution Business Division, Diagnostic Systems Division, Hitachi, Ltd., Healthcare Business Unit
Intel® DevCloud for the Edge provides a sandbox for fast testing and prototyping

The company was able to accelerate prototyping and testing using Intel DevCloud for the Edge, a cloud-hosted sandbox, in order to refine their solutions, innovate, and speed time to market. The integrated Intel Distribution of OpenVINO toolkit provides Hitachi with a flexible software development environment for deep learning inference. This also gives the company the information to prepare hardware systems powered by the Intel® Xeon® Scalable processor family and the Intel® Core™ processor family to deliver the necessary scalability and performance.

The learning curve for Intel DevCloud for the Edge and the Intel Distribution of the OpenVINO toolkit is minimal. The company’s developers are able to collaborate seamlessly—as if they are on Hitachi’s internal development environment. Hitachi is completely confident in their decision to move the GPU algorithms to the Intel Distribution of the OpenVINO with no significant schedule disruption.

Testing using Intel DevCloud for the Edge enables Hitachi to optimize their solutions to lower costs and minimize long-term maintenance support while delivering the reliability and accuracy essential to the healthcare industry.

Learn more about Intel DevCloud for the Edge at software.intel.com/en-us/devcloud.

Explore the Intel Distribution of OpenVINO toolkit at software.intel.com/en-us/openvino-toolkit.

Healthcare intelligence at the edge

Intel and its ecosystem partners are helping to transform healthcare with new edge computing solutions. These solutions complement cloud and data center resources with support for multiple edge devices, applications, and services on a single common platform. The results are giving healthcare provider organizations new levels of agility, reliability, and responsiveness for better operational performance and care delivery.

Innovations in infrastructure and connected medical devices can reduce patient hospitalization and lower costs. By improving diagnostics and imaging in the clinical setting, hospitals can expand the care delivery options for patients.

High-performance Intel® technologies, Intel DevCloud for the Edge, and the Intel Distribution of the OpenVINO toolkit help enable Hitachi to improve the quality of care by delivering intelligence at the edge to the healthcare sector.

About Hitachi, Ltd.

Recognizing that healthcare is an essential part of the infrastructure that supports society in the 21st century, Hitachi is developing innovative technologies and supplying the associated systems, solutions, and services to help create a society in which everyone can enjoy a healthy and secure way of life.

By collaborating with diverse partners, employing technologies from various industries, and drawing upon experience developing user-friendly healthcare products, Hitachi is helping to deliver healthcare services tailored to individuals at every stage of life and contributing to sustainable social systems suitable for each country.

Hitachi’s global offering includes IT-related digital technologies such as artificial intelligence and big data analytics, as well as operational technology and products.

Learn more at hitachi.com.