

## **Hitachi Collaborates with NVIDIA to Accelerate Digital Transformation with Generative AI**

*Collaboration brings together Hitachi's leadership in mission-critical products and services in the physical world with NVIDIA's expertise in AI platforms*

**Tokyo, March 19, 2024**— Hitachi, Ltd. (TSE:6501) today announced it is collaborating with NVIDIA to accelerate social innovation and digital transformation by combining Hitachi's domain solutions in operational technology (OT) and leadership in key industries including energy, mobility, and connected systems with NVIDIA's expertise in generative AI.

Generative AI has made a tremendous impact in the enterprise and consumer arena, bringing about a new wave of digital transformation, which promises to redefine product experiences and deliver a new level of efficiency to organizations. Through this collaboration, generative AI will now be extended into the industrial sphere by capturing vast amounts of data generated in the world of OT -- from various sensors, devices and industrial machines -- and applied to streamline performance, gain insights, and allow organizations to automate actions that have not previously been possible.

Hitachi, working with NVIDIA, will select an executive leadership team and establish an AI Center of Excellence (CoE) and, in line with strategic milestones, will develop and market industry solutions that integrate Hitachi's domain knowledge in OT with advanced NVIDIA AI software and GPU technologies. Hitachi will invest in expanding the training of engineers on NVIDIA software platforms – including CUDA™, NVIDIA AI Enterprise<sup>\*1</sup>, Omniverse™<sup>\*2</sup> and Modulus<sup>\*3</sup> – among other collaborative measures. These efforts will pave the way for new innovations that will directly benefit society.

### **Background**

Generative AI has demonstrated tangible proof points in improving the performance of organizations in automating tasks, creating efficiencies, and enhancing products and services. Due to its remarkable impact, generative AI has widely been adopted in all industries -- becoming a critical technology for innovation and growth and an enabler for transformative solutions.

The NVIDIA accelerated computing platform supports large-scale language models and creative generation, and its advanced technological capabilities in AI software and simulation are contributing to innovation in all industries, from energy to drug discovery to manufacturing.

With approximately 320,000<sup>\*4</sup> employees across the globe, Hitachi is an established leader in Information Technology (IT), Operational Technology (OT) and Products for the physical world including advanced solutions for energy, mobility, and industrial sectors. In May 2023 Hitachi launched its advanced Generative AI Center to promote the safe and effective use of generative AI both inside and outside the company<sup>\*5</sup>. Hitachi has successfully deployed generative AI in numerous use cases to boost innovation, improve efficiency and productivity for employees and clients. As a result of these efforts, Hitachi has conducted more than 100 projects in Japan and across the globe enabling enhanced problem solving and innovation using generative AI. Furthermore, to accelerate AI transformation, Hitachi will create and host an environment running on NVIDIA accelerated computing and develop a common platform for generative AI which incorporates Hitachi's domain knowledge and strengths in software development.

"Since its founding, Hitachi has been committed to solving issues faced by customers and society based on our philosophy of 'contributing to society through the development of superior technologies and products'. **said Toshiaki Tokunaga, Executive Vice President and Executive Officer, General Manager of Digital Systems & Services Division at Hitachi,** "Through this exciting new collaboration with NVIDIA, we expect that Hitachi's deep expertise in mission-critical industries combined with the NVIDIA generative AI stack will allow us to solve complex, real-world problems accelerating social innovation for breakthrough societal outcomes."

"Generative AI is driving enterprises to find the latest and greatest tools to keep up with productivity, efficiency, and automation demands," **said Jay Puri, executive vice president, Worldwide Field Operations at NVIDIA.** "The combined technologies of Hitachi and NVIDIA can power the next wave of digital transformation, enabling organizations to push the boundaries of manufacturing and industrialization."

## **About the Collaboration**

### 1. Next-generation industrial simulation and optimization

Hitachi has crafted a bold vision for projects that will go beyond the conventional. Specifically, by utilizing NVIDIA Omniverse, a platform for connecting and developing OpenUSD applications, and NVIDIA Modulus, a framework for building, training, and fine-tuning physics-machine learning models, Hitachi can develop simulate and optimize various assets and processes for mission-critical fields such as energy and transportation in a digital twin environment. The results can then be reflected in the real world, allowing for the collaborative development of large-scale solutions that can, for example, accelerate the transition to green energy, enable new innovations in healthcare, or enhance the safety of transportation systems, while validating and improving their effectiveness.

### 2. Hitachi industrial AI solutions on NVIDIA AI Enterprise

Hitachi Lumada's AI solution library, for which Hitachi has built a track record of value creation in various industries, will also be integrated with the NVIDIA AI Enterprise and Modulus platforms. Leveraging Hitachi's design and digital engineering capabilities, these solutions will enable customers in various industries, including transportation, energy, industrial, and finance, to accelerate innovation, enhance their offerings, and create a new range of intelligent, AI-centric solutions.

### 3. Development of a new portfolio of AI solutions "Hitachi iQ"

Enabled by the collaboration, Hitachi Vantara will launch the first offering under the Hitachi iQ portfolio. The new offering will undergo NVIDIA DGX BasePOD<sup>\*6</sup> certification, providing customers with a fully certified, integrated solution, built on NVIDIA DGX<sup>\*7</sup> infrastructure and highly reliable storage. Offered through multiple consumption models, Hitachi Vantara will provide customers with mechanisms to consume just what they need, all while providing improved on-premises performance and allowing for a better ROI from their AI-enabled storage and data infrastructure. Hitachi iQ will also release a high-end NVIDIA HGX offering — powered by NVIDIA H100 Tensor Core GPUs — and a set of midrange PCIe based offerings, consisting of NVIDIA H100 Tensor Core and L40S GPUs<sup>\*8</sup>. As a complement to these products, Hitachi Vantara will also offer NVIDIA AI Enterprise, a software platform comprising enterprise-grade AI tools and frameworks. Lastly, Hitachi Vantara will offer a new Generation 5-based accelerated storage node utilizing the Hitachi Content Software for File storage technology, which will enable it to deliver extremely fast storage solutions for complex AI workloads. Hitachi Vantara's iQ portfolio is expected to be generally available in the first quarter of Hitachi's fiscal year 2024.

Through this collaboration, Hitachi will drive forward in its bold ambition to create immense impact globally and contribute to the realization of a sustainable society.

\*1 NVIDIA AI Enterprise: <https://www.nvidia.com/en-us/data-center/products/ai-enterprise/>

\*2 Omniverse: <https://www.nvidia.com/en-us/omniverse/>

\*3 Modulus: <https://developer.nvidia.com/modulus>

\*4 As of March 31, 2023; approximately 260,000 as of December 31, 2023.

\*5 News Release "Hitachi Establishes New "Generative AI Center" to Accelerate Value Creation and Improve Productivity in the Lumada business by promoting the use of Generative AI" <https://www.hitachi.co.jp/New/cnews/month/2023/05/0515.html>

\*6 NVIDIA DGX BasePOD: <https://www.nvidia.com/en-us/data-center/dgx-basepod/>

\*7 NVIDIA DGX : <https://www.nvidia.com/en-us/data-center/dgx-platform/>

\*8 L40S GPUs: <https://www.nvidia.com/en-us/data-center/dgx-platform/>

### **Exhibit at the "2024 GTC AI Conference"**

Hitachi Vantara is a Silver Sponsor at 2024 GTC, the world's leading conference for the AI era, to be held March 18-21 in a hybrid format in San Jose and Virtual, USA. We will introduce innovation through data, infrastructure and services that enable advanced customer experiences and applications using AI.

<https://www.hitachivantara.com/en-us/company/events-webinar/nvidia-2024.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>.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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