FOR IMMEDIATE RELEASE

Fixstars, Getworks, and NTTPC Jointly Begin Establishing Operational Environment for Liquid-Cooled GPU Servers

TOKYO, JAPAN – May 07, 2025 – Fixstars Corporation (TSE Prime: 3687, Headquarters: Tokyo, Japan; hereinafter "Fixstars"), a leading company in performance engineering technology, has partnered with Getworks Inc. (Headquarters: Tokyo, Japan; hereinafter "Getworks"), which operates containerized data centers, and NTT PC Communications, Inc. (Headquarters: Tokyo, Japan; hereinafter "NTTPC"), which handles network, data center, and AI-related businesses. Together, they will leverage their respective expertise to build a vendor-neutral operational environment for liquid-cooled GPU servers, which are expected to become mainstream in the future, and contribute to their wider adoption in Japan.
(Company names are listed in alphabetical order.)

The rapid increase in demand for generative AI has accelerated the pace of GPU technological innovation. As GPU performance improves, their power consumption and heat generation have become enormous. It is already difficult to cool these GPUs with conventional air cooling, making liquid cooling, which absorbs heat with liquid, an essential cooling method. However, there is limited operational experience with liquid-cooled GPU servers in Japan. The reasons for this are considered to be:

* Different cooling specifications and compatible CDU equipment depending on the server vendor.
* Requirement to select CDU equipment for each GPU even within the same vendor.
* Reluctance to bring water into data centers and increased costs for modifying existing facilities.
* Limitations on the amount of water that can be brought into buildings.
* Lack of expertise in building liquid cooling environments.

To address the inability to meet the rapidly increasing demand for GPU server introduction and installation, and to make a breakthrough in the stagnant adoption of liquid cooling environments, the three companies will combine their respective areas of expertise. They aim to establish operational environments for liquid-cooled GPU servers from multiple server vendors by this summer.

Roles of Each Company

Fixstars

Fixstars will provide its own liquid-cooled GPU servers for validation testing. Leveraging its extensive experience in GPU-accelerated software and performance tuning, Fixstars will be responsible for evaluating overall system performance and verifying reliability. Furthermore, Fixstars will provide technical support from a software perspective for full-scale implementation, including identifying and optimizing bottlenecks in AI workloads and supporting the latest GPU architectures. This will contribute to the realization of infrastructure capable of stable and efficient execution of high-load AI processing.

Getworks

Getworks has been developing containerized data centers utilizing renewable energy since 2014 and was the first in Japan to introduce Supermicro's cooling towers last year. They are currently operating liquid-cooled GPU servers in their self-built liquid cooling environment. They daily address the vast amount of the latest information brought in from various vendors and technical challenges inherent in new liquid-cooled data center construction projects, and will provide their experience, knowledge, and construction technology. They will also build a dedicated validation container within their containerized data center as place for validation and establish a comprehensive operational management technology system for liquid cooling environments.

NTTPC

NTTPC has a track record of providing multiple large-scale GPU clusters and will approach this validation from the perspective of hardware engineering based on that experience. They will be present from the startup of the CDU (Coolant Distribution Unit), handle initial setup such as equipment rack mounting and OS installation, observe water temperature rise and cooling through server load tests, and collect data on the correlation between power consumption and cooling efficiency compared to air cooling. They plan to accumulate knowledge and expertise unique to liquid-cooled servers.

The validation and operational testing will take place at the Yuzawa GX Data Center, jointly operated by Getworks and GX Technologies Inc. (Headquarters: Yuzawa Town, Niigata Prefecture; Representative Director: Taizo Takizawa; hereinafter "GX Technologies"). Utilizing the facility's abundant water sources and numerous validation devices, they will quickly address issues with resident electrical and liquid cooling technicians available on-site for prompt support. Fixstars will support the sharing of data and knowledge gained through this initiative within the consortium planned for future establishment. Additionally, they will contribute from a performance engineering perspective to the domestic deployment of the cutting-edge liquid-cooled GPU server "Blackwell Ultra B300," which was recently announced at GTC 2025.

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About Fixstars Corporation

Fixstars is a technology company dedicated to accelerating AI inference and training through advanced software optimization solutions. It supports innovation in healthcare, manufacturing, finance, mobility, and other industries. For more information, visit: https://www.fixstars.com/

About Getworks Inc.

Our containerized data center business has continued to evolve since the launch of our first unit in 2013, through diverse validation experiments. Beyond simply building data centers in containers, we are committed to utilizing energy-saving and renewable energy sources, collaborating with local governments to incorporate various renewables such as snow, water, and outside air.

We have continued to construct various types of data centers to meet the environmental conditions of the installation sites (climate, power, etc.) and customer needs. As of the end of December 2024, we have a track record of building 285 units (20ft: 265 units, 40ft: 20 units). We also have delivery experience with demanding customers, including major corporations, power utility companies, and hospitals. We can handle everything from selecting the installation site to various construction work (civil engineering, power, communication) and application procedures. We also support various subsidies and grants, which are being utilized by an increasing number of customers in recent years.

Furthermore, with the increasing demand for AI and high-speed computing, we have a track record of installing and operating over 3,000 servers and over 10,000 GPUs. Our complete in-house design and domestic production enable short delivery times and cost reduction, with delivery and operation possible in as little as 10 days from application.

https://www.getworks.co.jp/

About NTT PC Communications, Inc.

NTTPC, as an expert in ICT services for domestic small and medium-sized enterprises within the NTT Docomo Group, offers a variety of simple and easily implementable services at affordable prices. We are actively engaged in AI-related businesses, including GPU infrastructure construction, network businesses, and cloud/data center businesses. On March 19, 2025, at the 'NVIDIA Partner Network Award 2025' ceremony, we were awarded the 'Best NPN of the Year,' the highest award given to partners in Japan.

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