

News Release

January 16, 2023

MIRAIT ONE Corporation

Morgenrot Inc.

WOODMAN INC.

Start of Service for M:MDC (Morgenrot Mobile Data Center) GPU-Based Industrial Container-Type Data Center Solution

Joint development and operation by MIRAIT ONE, Morgenrot and WOODMAN

MIRAIT ONE Corporation (head office: Koto-ku, Tokyo; President and CEO: Toshiki Nakayama; “MIRAIT ONE”), Morgenrot Inc. (head office: Minato-ku, Tokyo; Representative Director and CEO: Hiroataka Inoue; “Morgenrot”) and WOODMAN INC. (head office: Minato-ku, Tokyo; President and CEO: Shinjiro Ono; “WOODMAN”) have established a M:MDC (Morgenrot Mobile Data Center) GPU-based industrial container-type data center solution, in the MIRAIT ONE Ikebukuro Technology Center, and commenced service on December 1.

Computer graphics (CG) rendering that is used not only in photorealistic CG production along with automobile development and urban development widely using complex simulations, but also in research institutes in a variety of areas, performs computation (rendering) of large volumes of data in terabyte units on a day-to-day basis. However, in addition to hardware for high-speed computation being expensive, operation costs arise when transferring large volumes of data, and a solution resolving these issues has been required.

“M:MDC” reduces data transfer costs through installation in proximity to the user, and does not require up-front investment in hardware by the user due to providing computing power in the cloud. For this reason, it is possible to easily provide high-speed computing power at far lower cost as the stage before use of a large-scale data center or a supercomputer. MIRAIT ONE is responsible for design, construction, operation and maintenance of container servers. In addition, Morgenrot developed the middleware and various software required for cloud-based high-speed distributed computing. Also, WOODMAN is responsible for procurement of server hardware based on high-performance semiconductors and the provision of technical support for design.

The first “M:MDC” container that was installed in the MIRAIT ONE Ikebukuro Technology Center and began operation will not only provide computing power to users, but also be open for various technical verifications and tours for those who are interested.

About MIRAIT ONE Corporation

MIRAIT ONE Corporation was launched on July 1, 2022 through the integration of MIRAIT Holdings Corporation, MIRAIT Corporation, and MIRAIT Technologies Corporation. MIRAIT ONE has established “co-creating an exciting future through challenges and technology” as its purpose (significance of existence), and is engaged in the resolution of issues faced by customers and society and regional revitalization by promoting initiatives such as urban and regional development, corporate DX and GX, green business and global business based on the technical capability cultivated until now in telecommunications facility construction and the civil engineering business.

URL : <https://www.mirait-one.com/english/>

About Morgenrot Inc.

Morgenrot is a company that has the vision to “provide computing power to anyone in the world” and provides computing power as a cloud solution. The company believes that “an environmentally friendly optimized life free of waste can be achieved by delivering the resource of computing power made from renewable energy and surplus electricity to anyone in the world where it is required.” It utilizes distributed GPU processing solutions developed in-house to provide “construction, sale, operation and maintenance of hardware” converting electricity into computing power, and the “M:CPP GPU cloud service” and “RenderPool® high-speed rendering service” to companies requiring large-scale computing power. The company has a love for technology, and possesses technology for efficient operation of large-scale computing power and highly reliable distributed technology utilizing the blockchain.

URL: <https://morgenrot.net>

About WOODMAN

WOODMAN is a comprehensive consulting company for computing devices and software essential for blockchain creation and CG rendering services.

URL: <https://woodman-jp.com/en/home/>

* Excalibur® and RenderPool® are registered trademarks of Morgenrot.

Overview of M:MDC (Morgenrot Mobile Data Center)

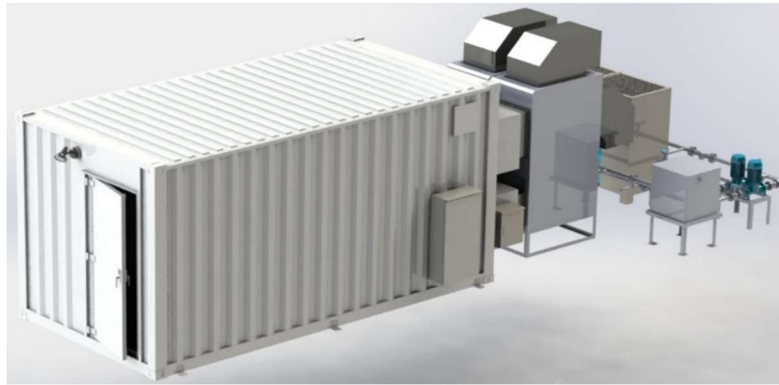


Image of External Appearance

Address

MIRAIT ONE Corporation Ikebukuro Technology Center (Itabashi-ku)

Characteristics

- Equipped with 12 of the latest high-performance CPU/GPU server racks in a high-strength container with high heat insulation
- Capable of cloud-based high-speed computing using Morgenrot's Excalibur® distributed processing software
- Meets energy-saving requirements of SDGs by utilizing energy-saving cooling technology based on heat pipes and water blocks
- Offers a variety of benefits regardless of the installation location
 - a) Able to reduce data transfer costs by being installed in proximity to users handling large volumes of data (* This case)
 - b) Can operate on clean energy by installing the container at a renewable energy generation site
 - c) Can perform high-speed computing on site by installing the container in development facilities, research institutions or development sites
 - d) Enables the effective utilization of existing idle land and facilities by installing the container
- Enables scalable expansion of computing power by installing multiple containers
- Meets needs for not only CG rendering, but also AI and deep learning requiring high-speed processing
- Can be provided as a high-speed computing resource sharing service enabling easy use of the necessary computing power without any setup hassle for processing, analysis, simulation, etc. in the elemental parts of large-scale projects

Roles of the companies

