

## News Release

July 11, 2023

MIRAIT ONE Corporation

MMD inc.

Socionext Inc.

**[MIRAIT ONE Corporation / MMD inc. / Socionext Inc.]**  
**World's First Latest Standard of High-speed Power Line**  
**Communication Installed at AOA SAPPORO Urban Aquarium**

MIRAIT ONE Corporation (head office: Koto-ku, Tokyo; President and Chief Executive Officer: Toshiki Nakayama; "MIRAIT ONE") and MMD inc. (head office: Shibuya-ku, Tokyo; CEO: Naoyuki Kato; "MMD") adopted and commenced operation of 4th generation HD-PLC™, which is the latest standard of high-speed power line communication, as the communication method required for collecting information in the Life Support System (LSS) that continues to create a comfortable environment for aquatic fauna and life through the monitoring and control of the water temperature, flow rate, etc. of water filtration equipment, artificial seawater production equipment, and aquarium tanks at AOA SAPPORO (3-Chome, Minami 2 Jonishi, Chuo-ku, Sapporo-shi; scheduled to open on July 20, 2023), an urban aquarium built by a joint venture by MIRAIT ONE and MMD (hereinafter referred to as "JV").

Socionext Inc. (head office: Yokohama-shi, Kanagawa; Representative Director, Chairman, President and CEO : Masahiro Koezuka) developed and supplied communication LSIs of the 4th generation HD-PLC™ that is required for LSS performing the collection of required information. Socionext also performed the field trials with the JV, making contributions to the realization of the world's first social implementation of the latest standard of high-speed power line communication.

4th generation HD-PLC™ is compliant with the international standard for high-speed power line communications technology (IEEE1901-2020), and provides communication using power distribution lines (power lines, etc.) in general facilities without using a dedicated communications network (wired or wireless) for communication by information equipment. For this feature, it is gaining attention as a communication standard for a smart connected society supporting telecommunications between new and existing equipment.

The benefits of using the latest standard of high-speed power line communication include enabling constant communication without laying a new communication network, in addition to not requiring plans, shortening construction time and curbing initial costs by reducing wiring, while being able to maintain a

stable communication environment and communication speed. The JV decided that using new or existing power distribution lines is effective as a means of communication and adopted it for collecting information on such equipment and energy.

MIRAIT ONE and MMD will continue to contribute to achieve a decarbonized society through the utilization of the technology as a communications technology that contributes to reducing initial costs and the life cycle cost when collecting information and controlling equipment and energy in future.

\* The first example of social implementation of the latest standard of HD-PLC™ in power line communication.

According to Socionext Inc.

HD-PLC is a trademark or registered trademark of Panasonic Holdings Corporation in Japan and other countries.

### **About MIRAIT ONE Corporation**

Using technology and knowledge on construction of communications infrastructure for telecommunications carriers, etc., MIRAIT ONE is proceeding with the social implementation of communications networks utilizing the advantages of next-generation HD-PLC™ in two-way communication for equipment such as power receiving facilities, air conditioning and power generation facilities, and various information devices such as meters and sensors.

### **About MMD inc.**

MMD is one of the few companies in Japan with excellent technology for engineering such as artificial seawater and water filtration, and spatial presentation and design capabilities, providing one-stop support to aquariums and museums spanning from business planning to design, construction and operation.

The company also manufactures and sells 4th generation HD-PLC™ products, and provides DX solutions utilizing HD-PLC™ such as monitoring of special equipment in aquariums and lighting control, signage, surveillance cameras and energy management in museums and commercial facilities.

URL:<https://mmd.inc/en/>

### **About Socionext Inc.**

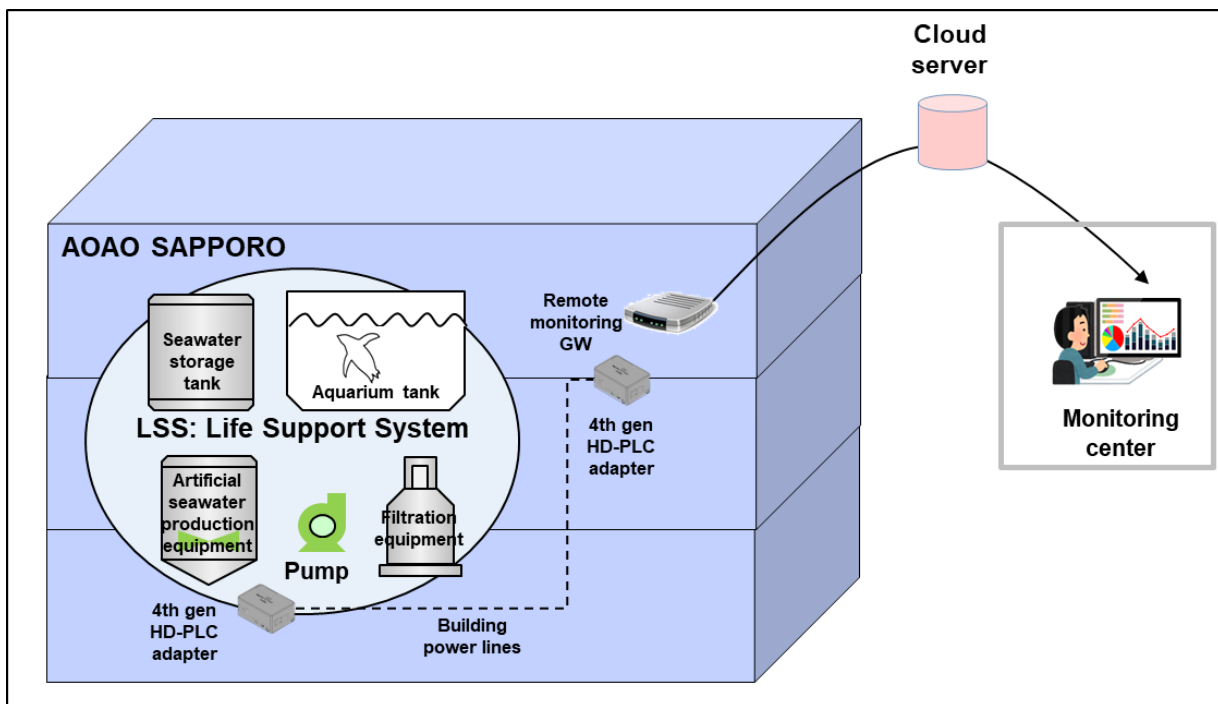
Socionext Inc. is a global SoC (System-on-Chip) supplier and a pioneer of a unique “Solution SoC” business model through decades of industry experience and expertise. Socionext contributes to global innovation in advanced technologies including automotive, data center, networking, and smart devices. As a trusted silicon partner, Socionext delivers superior features, performance, and quality that differentiate its customers’ products and services from their competition.

Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its development and sales activities. For more information, visit <https://www.socionext.com/en/>.

[Attachment]



AOAO SAPPORO (perspective drawing)



System image