amnimo Inc. Starts Development of High-performance, Robust LTE Gateway (Edge Gateway) for Industrial Use

TOKYO (23 March, 2020) - amnimo Inc. (Headquarters: Musashino City, Tokyo; President & CEO: Koichi [Casey] Taniguchi; hereafter, “amnimo”) starts developing an industrial-use LTE gateway, “Edge Gateway,” which is equipped with rich computing resources and a high level of robustness.

IoT is a mechanism by which a variety of devices are connected to each other via the network or the cloud service; these devices exchange information with each other. Recently, numerous approaches to the use of industrial-use IoT (IIoT) have been evolving in all types of industries. As IIoT continues to proliferate, examples of user work process improvements are increasing, but at the same time, we are witnessing operational issues such as suppressing failures in harsh external environments and being able to remotely deal with failures without going to the site. There have also been requests to process large volumes of data, such as video, using Edge in an advanced manner.

To resolve such issues, amnimo is developing the “Edge Gateway,” which is optimized for IIoT. The objective is to equip the Edge Gateway with LTE communication features that can be used in a wide variety of industries; in particular, to develop an optimal design for use in surveillance-camera systems.

[Characteristics of the Edge Gateway]
1. Wide operating temperature range and power voltage range. Equipped with power circuits that are robust against noise and sudden outages, it has features for automatic recovery in case of a failure. This helps achieve stable operation even in harsh outdoor environments.
2. Equipped with 2 GB of RAM and 32 GB eMMC for program storage space as the standard configuration, it can also be operated using a 2-TB SSD (Solid State Drive), enabling large-volume video data to be stored within the Edge Gateway.
3. Equipped with a power-supply function for PoE*(1) compatible devices, it can be directly connected to a maximum of four IP cameras without using a PoE hub.
4. The communication modules can accommodate two types of plastic SIM cards and eSIMs for a maximum of four different carrier SIMs, enabling the user to bypass communication failures by switching SIMs at high speeds in cases of emergency.
5. Customer app development is possible on the Ubuntu OS; in addition, software development kits are provided for partners.

6. Equipped with a VMS (Video Management System (*2)) as standard, simplifying the process of constructing small-, medium-, and large-scale surveillance systems.

7. An extension port slot is internally provided in the Edge Gateway, enabling smooth addition of future functional extensions.

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*1 Power over Ethernet: Specification wherein power is provided to the connected device(s) using Ethernet communication cables.

*2 System for saving and managing video captured using a surveillance camera.

In addition, we are developing a “device management system” to resolve issues related to operation on IIoT devices, such as the Edge Gateway. This device management system is a cloud service that enables initial configuration of IIoT devices, remote configuration and firmware updates, management of installation location, equipment life monitoring, log collection during operation, problem analysis and replacement, and transfer of configuration data for troubleshooting, thereby reducing the burden on the operator.

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[Configuration example of a surveillance camera system using the Edge Gateway]

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amnimo provides customer support for IIoT service and surveillance-camera systems, with the following objectives: “fast response and resolution for customer issues,” “value creation and innovation,” and “aim to grow with partners.”
About amnimo

amnimo was formed as a solely owned subsidiary of Yokogawa Electric Corporation as a new business to provide Industrial Internet of Things (IIoT) services in May 2018. With an excellent mobility, amnimo makes a swift decision and develops its business in a rapidly changing market. amnimo strengthens collaboration with customers and partner companies in various fields and countries to create new shared values by leveraging IIoT technologies.

To learn more, please visit https://amnimo.com/en/

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