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# Iwatani Utilizes Gas Leak Detector Equipped with Communication Function as IoT Gateway

### Develops new technology to bring the IoT network into homes

Iwatani Corporation (Head Offices: Osaka and Tokyo, President: Mitsuhiro Tanimoto, Paid-in Capital: 20 billion yen) has developed new technology (patent pending) that functions as a gateway to connect a variety of “things” to the Internet by adding a communication function to the gas leak detectors that are installed in homes.

## ■ Purpose of development

Iwatani’s LPG business has the largest customer based in Japan. It has established a system throughout the country that enables security workers to reach a site within 30 minutes in an emergency. This new technology has been developed to provide new services that support customers’ lives in a variety of settings by utilizing IoT technology based on Iwatani’s strengths.

## ■ Overview

Data communication is performed with a gas meter by using the gas leak detector equipped with a communication function. This enables the meter to be remotely read and the supply of gas to be shut off in case of a problem. For customers, it is possible to use gas safely without worrying about running out of gas in addition to quickly confirming the use status. In the future, Iwatani will establish a platform that provides to customers with new value and services, such as a monitoring service and healthcare service for the elderly, using the gas leak detector equipped with a communication function as a hub for connection to other infrastructure meters and home IoT devices, utilizing Iwatani’s bases throughout the country.

## ■ Characteristics

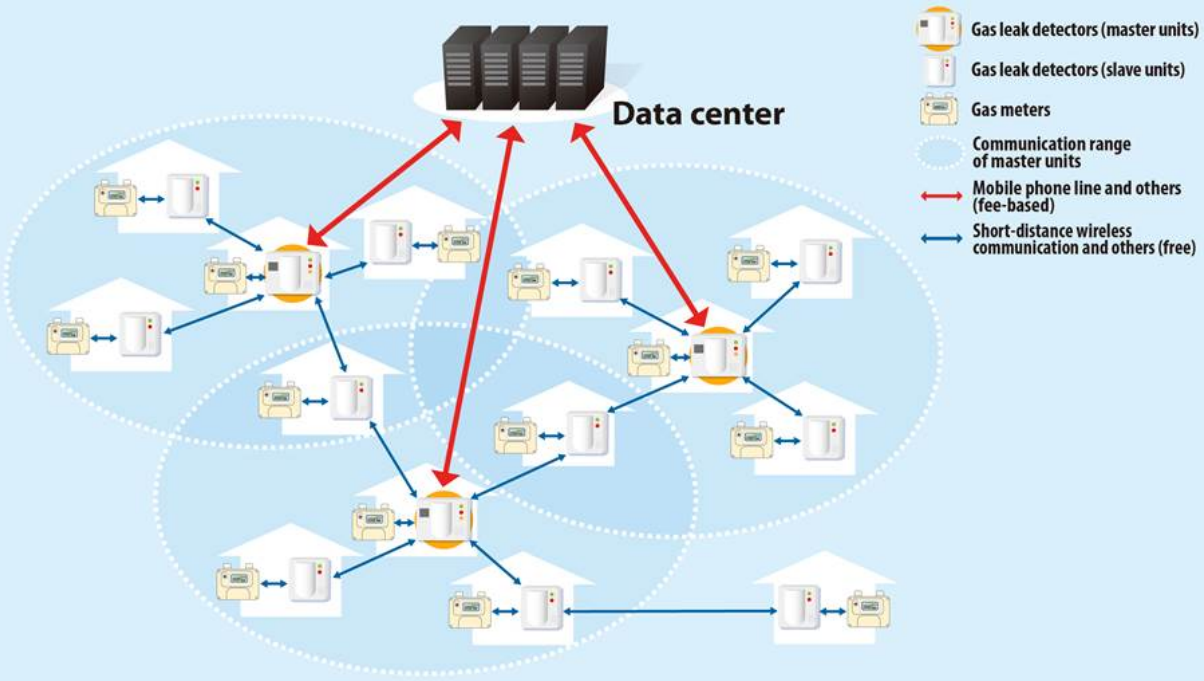
**(1) Decreasing communication costs**

Usually, to provide these services, it is necessary to connect each piece of equipment to the internet. However, the technology developed by Iwatani does not require a direct connection. For the gas leak detector equipped with a communication function, it is possible to set up 10 to 20 slave units with one master unit. The slave units collect information from each piece of equipment, such as a gas meter. The information is sent to the data center via the master unit. For communication between each piece of equipment, slave units and master units, a communication network that does not require communication costs is used, such as short-distance wireless communication. A communication network that requires communication costs is only used for communication between the master unit and data center, such as a mobile phone line or the wireless communication systems of LTE-M and NB-IoT, which are expected to expand in the future. This enables a remarkable reduction in communication costs for each home.

**(2) Advantages of adding a communication function to gas leak detectors**

By using gas leak detectors that have been widely used in homes as an IoT gateway, it is possible to establish an IoT network without the need to introduce dedicated equipment. The installation of a gas leak detector equipped with a communication function is completed simply by installing it on a normal gas leak detector in the customer’s home. Further, because gas leak detectors have independent power sources, no other power source is required.

## Gateway function using a gas leak detector equipped with a communication function




## Utilize AI and IoT to build Iwatani's business platforms