



“We will strive to provide this safe and secure system to a greater number of households. The research that Fujitsu will continue to carry out will result in an even better array of services.”

President Shiro Hamano  
Yokohama City Housing  
Development Public Corporation

Yokohama JKK has implemented Fujitsu UBIQUITOUSWARE to monitor the health and safety of elderly residents.

#### At a glance

Country: Japan

Industry: Construction

Founded: 1966

Website: [www.yokohama-kousya.or.jp/](http://www.yokohama-kousya.or.jp/)

#### Challenge

Increasing numbers of elderly people are living alone. Monitoring services can help with health and safety issues but there are privacy concerns from residents that have hindered adoption.

#### Solution

The Fujitsu UBIQUITOUSWARE Monitoring Solutions for Residents relies on unique acoustic analysis technology that allows the health and safety of residents to be monitored while addressing privacy concerns.

#### Benefits

- Unique acoustic analysis technology ensures emergency assistance to elderly residents while guaranteeing privacy
- Two way communication ensures high acceptance rates by residents
- Enables the creation of added value rental properties that provide monitoring of the health and well being of residents

## Customer

Yokohama City Housing Development Public Corporation (Yokohama JKK) was established in 1966. Yokohama JKK aims to provide safe, secure and high quality housing and town planning. One of the current issues facing Yokohama JKK is the aging population of its residents and the need to maintain a safe lifestyle for them.

## Products and Services

■ FUJITSU UBIQUITOUSWARE Monitoring Solutions for Residents

### Sensing technology enables better elderly resident care

Yokohama JKK has been overseeing the introduction of monitoring services aimed at elderly residents living alone.

"We have been actively focusing on projects reviving housing complexes. Our goal is to bring life back into towns through reusing old buildings built 40 to 50 years ago. But it's not only the buildings that have aged" explains Yokohama JKK's President Shiro Hamano.

"There are many who are concerned as to whether elderly people can take care of themselves if they become ill, fall over and/or injure themselves. Such circumstances could also lead to a solitary death. As a public corporation, we seek to actively provide help through creating a safe living environment" continues President Hamano.

### Addressing privacy concerns through a 6 month trial

Ensuring privacy was a key concern. In particular "camera setups in residential apartments have been strongly rejected as it feels like residents are being watched constantly" explains Rental Housing Business Section Assistant Director Atsuya Toda.

In response to concerns around emergency responses and privacy issues, a 6 month trial of Fujitsu IoT Solution UBIQUITOUSWARE's Monitoring Solutions for Residents was carried out. This solution senses the temperature and humidity, as well as residents' movements and sounds, from the remote care bases setup within the rooms. The resident's living circumstances can be analyzed and monitored for abnormalities. In addition to providing increased safety, health monitoring can also be established with 24 hour nurses able to check the resident's status using the Fujitsu Group Call Center.

"As an issue that we saw during the trials, when we offered to implement the service, we weren't sure whether residents would be willing to try out the services" comments Rental Housing Business Section Manager Yu Nakayama.

In order to conduct the trial experiment, remote care bases were set up in the living room and bedroom. Human presence sensors, sound detecting microphone devices, and temperature and humidity detectors were set up, as this combination would allow for 24 hour, year-round monitoring of the residents.

From the information collected by the sound and human presence sensors, detecting the movements and sounds gave predictions for lifestyle changes. Sounds from conversations where remote care bases were placed were processed and not recorded nor sent outside of the living residence. Signs of an active lifestyle were defined as including sounds from televisions, coughing, conversations, and snoring, which were recorded and thus provided information on the resident's activities. Information was collected frequently and uploaded to the cloud once every hour.

If after a period of time, there were no positive signs, call nurses on standby were notified when the device installed in the room detected any abnormalities. The Call Center nurses could then contact the resident and if there were no answer then an emergency phone call would be instigated.

"In terms of privacy this is a great service. We can have the residents use this and receive feedback, hence the decision to conduct a trial experiment" explains Assistant Director Toda.

### Providing a reliable source of support

Current services have received excellent evaluations from the residents, with close to half of the participants subscribing to the system after the trial session. "Many of the participants monitored felt a sense of security with the 24 hour on the clock watch" says Rental Housing Business Section Manager Yu Nakayama.

"For those of us living alone, the checkup calls have become a reliable source of support", says a current resident who subscribed to the system after the trial session. "The monitoring system is able to detect frequent coughing, and residents can be notified by phone about abnormalities and can pass on those details to doctors. I'm able to get information in regards to the smallest health changes that I may not notice myself and can make the most out of it for health checkups. This is a very reliable service."

As the trials were a success and the solutions received positive evaluations by the residents, procedures were started to implement the full services. Providing residents with highly valued services will result in Yokohama JKK properties standing out from other rental properties. In terms of future developments, President Hamano emphasizes that "we will strive to provide this safe and secure system to a greater number of households. The research that Fujitsu will continue to carry out will result in an even better array of services."

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