"We can put the money we save by using the FUJITSU IoT Solution UBIQUITOUSWARE Remote Monitoring Station into our facility, to provide an even better worry-free environment for senior citizens to live in."

Yasufumi Shimoyama
Secretary
White Hat House

White Hat House ensures its elderly residents' safety and reduces costs with FUJITSU IoT Solution UBIQUITOUSWARE Remote Monitoring Station.

At a glance
Country: Japan
Industry: Healthcare
Founded: 1985

Challenge
White Hat House wanted to be able to watch over residents 24 hours a day, 365 days a year, without having to pay excessive costs. It needed a surveillance system that respects residents' privacy and allowed for immediate response in case of emergency.

Solution
FUJITSU IoT Solution UBIQUITOUSWARE Remote Monitoring Station was installed in residents' rooms to collect sounds of them moving around and talking. A designated system based in the cloud analyzes this sound data, and if any abnormalities are detected, the resident receives a phone call from a nurse at a call center. The call center is staffed 24 hours a day, 365 days a year.

Benefit
■ Cut nighttime facility operation costs by 80% using acoustic sensors

■ Created a system that protects residents' privacy as it only analyzes the sounds inside the rooms

■ A call center contacts the resident to confirm their safety if the sensor detects any abnormal sounds

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Customer

White Hat House's parent organization "Tanpopo No Kai" was established in 1985 as a day care service. The organization then expanded its activity to include initiatives such as creating a network to find elderly people who had become lost, and surveying the situation of in-home nursing care by family members. When the Public Nursing Care Insurance Law was enacted in 2000, White Hat House was established as an NPO and began running its senior citizens care facilities. It currently operates three facilities in Kushiro City – a day care service, group home, and group living facility – it also runs family nursing care lessons and community food halls.

Products and Services

■ FUJITSU IoT Solution UBIQUITOUSWARE
 Remote Monitoring Station

Burden on staff and increased costs

At White Hat House, the method for watching over residents had become a serious issue. To ensure elderly residents with dementia did not leave the facility and get lost, and to prevent serious accidents due to staff not realizing immediately that a resident had fallen in his or her room, the NPO needed to have employees on site at all times. But this placed a huge burden on staff and generated significant costs. White Hat House has been active in the local community since 1985 and wanted to keep fees for residents at its facility Hogara Kan as low as possible. This meant that establishing a 24-hour-a-day, year-round surveillance system was important to the NPO.

When running a group living facility, it is not a requirement to have staff on site overnight. But White Hat House introduced a 24-hour watch system at Hogara Kan several years ago. It employed paid volunteers for the night shift, but the cost burden was too great. "Next, we thought we'd ask a nearby nursing care school for cooperation," explains Yasufumi Shimoyama, Secretary, White Hat House. The NPO introduced a system where several students could stay in rooms at Hogara Kan for lower costs than standard accommodation. In return, the students were tasked with calling staff any time something happened overnight or on a weekend. "We figured the students would be trustworthy as they were studying nursing care, and the economic benefits would be attractive to the students, too," says Shimoyama.

However, there were various obstacles uncovered in this plan. When the school was closed for vacations, the students would all go back to their home towns, meaning the NPO needed to assign staff to replace them. This generated more labor costs. "The end of the year was the worst, because all the students would leave and there would be nobody available to replace them. I ended up having to stay at the facility to watch over the residents myself," says Shimoyama.

Combination of acoustic sensors and call center

In June 2017, worried about how to secure staff to watch over residents at night, Shimoyama heard about Fujitsu's watch-over solution. He realized that this could eliminate the need for having staff present to watch over residents, and immediately contacted Fujitsu.

With the Fujitsu watch-over solution, residents do not need to press a button when they require assistance. Instead, a device called the FUJITSU IoT Solution UBIQUITOUSWARE Remote Monitoring Station is installed in their rooms to collect sounds of them moving around and talking. A designated system based in the cloud analyzes this sound data, and if any abnormalities are detected such as a suspected fall, the resident receives a phone call from a nurse at a call center to check their safety.

The call center is staffed 24 hours a day, 365 days a year, and the nurse there notifies care home workers and the resident's family if necessary.

As well as acoustic sensors, Remote Monitoring Station also features motion sensors to check for movement in the room, and temperature and humidity sensors to detect and give warnings if the room is too hot. There is an emergency call button as well as a help button for non-emergent situations, which residents can use to speak to the call center casually about health concerns.

Each of the nine rooms at Hogara Kan was fitted with Remote Monitoring Station. Before introducing the new system, an explanation meeting was held at the facility to show the residents how to use it and explain its functions.

At the meeting, some residents expressed concerns, saying that they dislike machines and didn't know how to use the device. But Fujitsu answered each question in careful detail and was able to gain the residents' understanding.

Achieving safety and respecting privacy

The main advantage of Remote Monitoring Station is that it uses sound. There is no need for staff to knock on residents' doors, nor is it necessary to watch them with surveillance cameras. The residents only receive a call from the call center when an abnormal noise is detected. This means their privacy is protected.

"An experienced nurse is stationed at the call center at all times to check the residents' safety and answer their queries. This was another great attraction of the service," says Shimoyama. Being able to press the help button to ask for advice about health issues eliminates residents' worries.

For White Hat House, an organization taking the initiative to employ state-of-the-art methods of nursing care, this introduction of a watch-over solution was a bold step towards providing worry-free lifestyles while also reducing its own costs. It is estimated that the introduction has saved White Hat House about 80% of its nighttime operation costs, compared to the time when it employed paid volunteers.

"Being able to ask for simple advice on health issues will definitely improve the quality of life of our elderly residents," says Shimoyama. "I actually used it to ask a question for myself, and I was very impressed by the nurse's professional response."

"We can put the money we save by using this watch-over solution into our facility, to provide an even better worry-free environment for senior citizens to live in," says Shimoyama. "I hope to increase the benefits at Hogara Kan and replicate them in our other facilities."