

“It keeps me healthy!”



THE STORY BEHIND THE DEVELOPMENT OF THE WANDANT DOG PEDOMETER



(left)
Ubiquitous Service Business Unit
Consumer Business Division
Strategic Alliance Department
Manager
YOUKO MITSUYAMA

(right)
Ubiquitous Service Business Unit
Consumer Business Division
Strategic Alliance Department
RYO MIZUGUCHI

Achieving an Innovative Health Management Service for Pet Dogs by Combining Dog Pedometers and Cloud Services



In recent years, we are seeing more and more cases of pets contracting obesity and diabetes, even when they are raised with great care. One Fujitsu employee wondered whether the sensing technologies that have been developed for mobile phones could be used to assist with the health management of pet dogs. From this small flash of inspiration, the Dog Pedometer & Cloud-based Health Management Service was born. It has garnered a tremendous following not only from the pet care industry, but from people all over the world. In this section, we look at the story behind the development of this innovative product and service.

Applying Sensing technology Cultivated through Mobile Phones to Health Management for Pets

Today, pets have truly become members of the family. As the relationship between people and their companion animals has grown closer, pets have increasingly been drawn into the family circle and are experiencing a prominent rise in obesity and other lifestyle diseases. Fujitsu seeks to support the health management of dogs by harnessing the power of human-centric ICT. This idea led to the development of the Wandant dog pedometer.

It all began at an internal manager training session. The idea for Wandant was developed by chance during a program designed to bring staff members together from different divisions to brainstorm ideas for new businesses, and pitch these ideas to management. The green light was given for this innovative project in December 2010. Fujitsu began full-scale development of a service that combines a dog pedometer with cloud-based health management support. A key application is the sensing technologies that have been developed for mobile devices.

Three Key Canine Health Management Functions

The pedometer functions use Fujitsu's sensing technology based on three-axis accelerometers used in mobile phones—an area where Fujitsu already has an extensive track record. However, considering the differences between the bone structures of people and dogs, as well as the fact that dogs have five different ways of walking and running, the technology could not be simply transferred to the dog pedometer without modification. Therefore, Fujitsu's developers gathered data by actually attaching sensors to dogs and filming their behavior on video. Fujitsu Laboratories Ltd. analyzed this video footage, and after surmounting many development challenges, successfully developed a pedometer algorithm specifically adapted to dogs.

Dogs have a tendency to shiver in moments of acute distress. Accordingly, Fujitsu developed a function that automatically measures and records such shivering motions and installed the function into the pedometer. Also, dogs walk close to the ground, where the temperature tends to be higher than what owners experience. For this reason, Fujitsu fitted the pedometer with a temperature sensor. This modification enables owners to monitor changes in the outdoor temperature, as well as indoor temperature when they are outside their homes, and thereby take steps to prevent their pets from suffering heat exhaustion.

Data recorded by the main pedometer unit using Fujitsu's proprietary sensing technologies can be easily uploaded to a cloud-based server via smartphones and PCs. Besides enabling users to store data on the server, Fujitsu has set up a user-friendly website that allows users to create diaries centered on the health management of their pet dogs.

A Strong Global Following Since Launch

In May 2012, Fujitsu announced that it had developed pedometer technology specifically adapted to dogs. The Wandant dog pedometer was launched following a press release about the new service in November 2012. The new product has attracted extremely strong interest. Since its release, Fujitsu has been receiving a steady stream of product inquiries from various industries around the world. The product has also received media attention from various quarters. Notably, Fujitsu has fielded a large number of inquiries from North America and Europe, which have enormous pet care markets, and where interest in the Wandant dog pedometer has far surpassed Fujitsu's initial expectations.

In 2013, Fujitsu commenced a joint study on pet behavior and health in cooperation with Anicom Holdings, Inc. and Professor Toshiki Sako of Nippon Veterinary and Life Science University. In addition, Fujitsu also started developing and field testing a cloud computing system for animal medical care at the same time as the Wandant dog pedometer. Fujitsu will work to promote organic links between the Wandant dog pedometer and this cloud service, which enables integrated management and use of pet health checkup records and diagnostic information.

Going forward, Fujitsu plans to upgrade and expand health support services for dogs, mainly by reducing the pedometer's weight and size, while providing additional features such as a monitoring function.



PERFORMANCE