



# ICT Solutions are giving shape to a brighter tomorrow

Through cloud computing and other cutting-edge information and communication technology (ICT) utilization, Fujitsu is taking advantage of previously underutilized value emerging from human knowledge and behavior, as well as changes in the social environment, to deliver solutions to society across a broad spectrum of fields. In this way, Fujitsu is helping to make a more prosperous and convenient society possible.



## Promoting smart cities as a model for regional revitalization in Japan

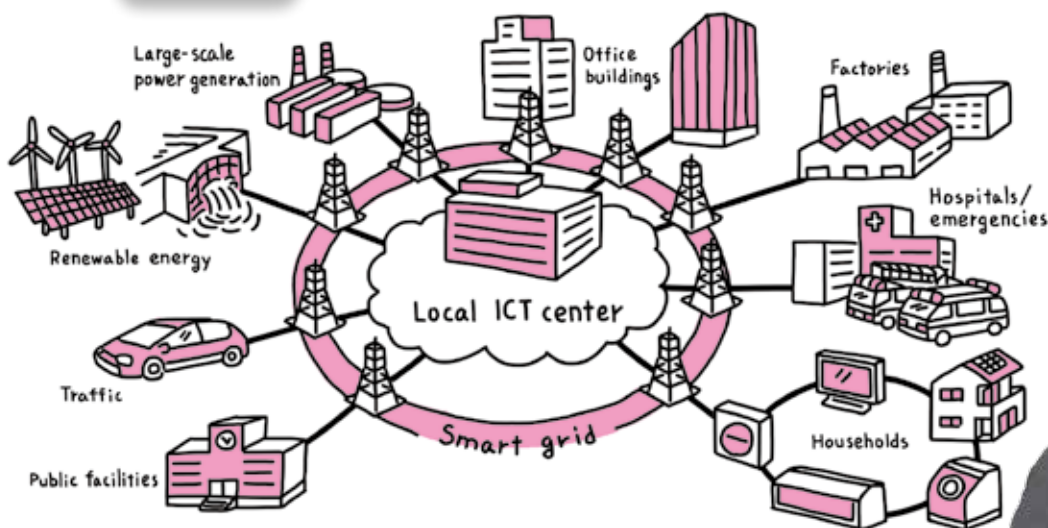
The world faces a host of problems today, including rapid urbanization and energy woes resulting from populations being concentrated in cities, as well as the need to cope with environmental concerns and the global economic recession. The same can be said for Japan; as it continues to grapple with longstanding issues, pressure has mounted around building secure, safe, and sustainable communities since the Great East Japan Earthquake of March 11, 2011.

Putting renewable energy to use is an issue in every region. Utilizing ICT, Fujitsu will support the smart conversion of social infrastructure, especially in the field of energy. In tandem, Fujitsu will leverage

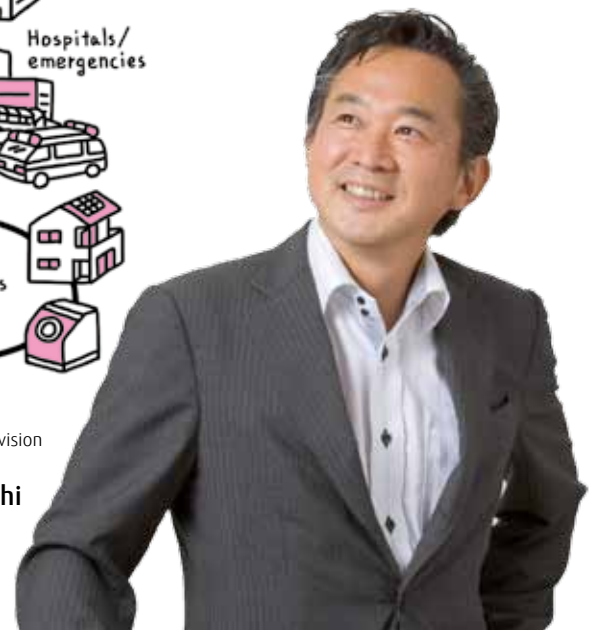
its own Field Innovation approach to think through and solve local issues, and tackle the question of revitalization together with local communities. In doing so, we aim to create a model whereby value is circulated throughout society for these communities to bring about sustainable “smart cities.”

Furthermore, by applying its rich experience of providing business solutions—a Fujitsu forte—to address the needs of local communities, Fujitsu will create a standard “regional revitalization model” for the development of Fujitsu-original smart cities across Japan. Our ultimate goal is to roll out smart cities worldwide, contributing to the creation of societies where people can live in peace of mind.

### URBAN PLANNING



Smart City Promotion Division  
General Manager  
**Kenichi Yamagishi**



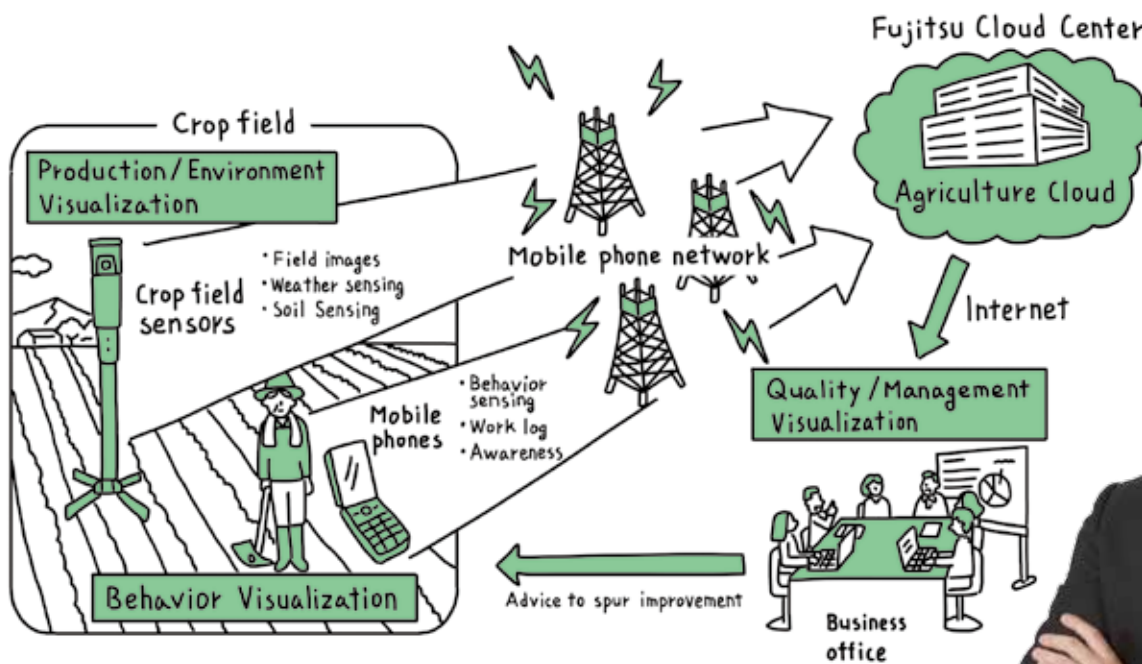


## Contributing to a future of abundant food with ICT

Fujitsu is beginning to roll out initiatives for the management of corporate farming. Data generated from sensors and cameras that record the conditions of farmland, and work logs of agricultural laborers gathered from GPS-equipped mobile phones are compiled at Fujitsu datacenters, enabling the data to be used for agricultural operations. For example, when spraying pesticides, we have shown that in some cases it is more effective in terms of total cost, including for personnel, to spray an expensive but highly effective pesticide once than a cheap but less effective one several times. Proving this, however, requires fairly in-depth data, such as when spraying occurs, the volume of pesticide used, who uses it and where, and the degree

of effectiveness. The use of ICT makes it dramatically easier to collect and analyze these types of data.

Today, the area of idle agricultural land in Japan is rising. Meanwhile, the proper transfer of agricultural techniques and knowledge as farmers grow elderly has become a serious issue. One possible solution is ICT, which enables conditions at several farmland locations to be centrally managed, and related work logs to be converted into a variety of formats. In the future, we hope to utilize ICT at food production sites as the starting point for contributing to more abundant food resources through a value chain that links together distribution channels, communities, and consumers.



Social Cloud Business Development Unit  
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**Kazumasa Tsunoda**

AGRICULTURE





HEALTH  
CARE

## Using big data analysis to predict risk of diabetes with a high degree of accuracy

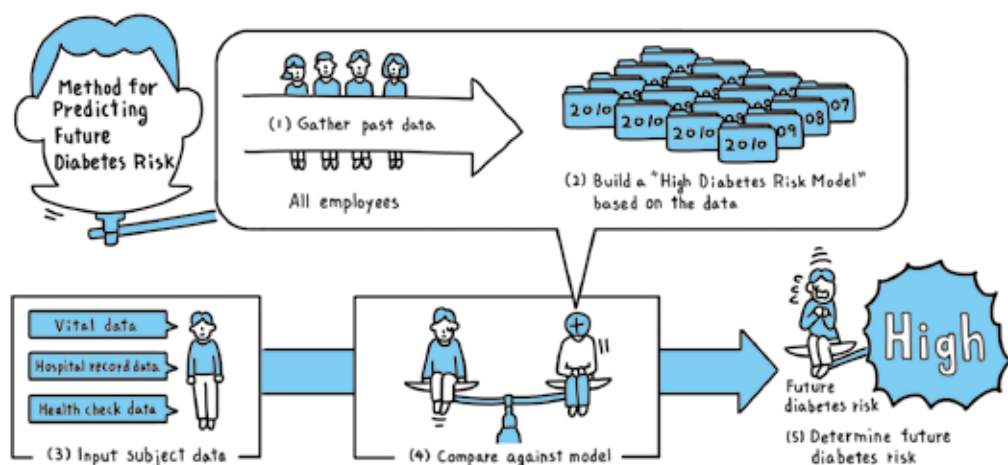
Fujitsu employees are taking part in an experimental program that aims to predict the risk of diabetes by analyzing all manner of health-related data—for example, data from regular health checks, records of hospital visits and other health insurance claim data, and vital data, including tracking the number of steps walked and day-to-day weight fluctuations. Even without medical knowledge, it is now possible to accurately assess the risk of diabetes by using a mathematical approach to analyzing such data. The early detection of precursors for diabetes and other lifestyle-related diseases has improved the health of Fujitsu employees. In the future, we would

also like to see this service find widespread use outside of Fujitsu (for example, in various companies' health insurance organizations), leading to improved health for a greater number of people and a reduction in national healthcare costs.

Broader smartphone uptake and increasingly sophisticated sensor technologies have made it possible to amass huge volumes of data. It is now possible to add value to this data via analysis using ICT in tandem with the knowledge and expertise humans have thus far cultivated. I find this to be one of the most rewarding and enjoyable aspects of our work.

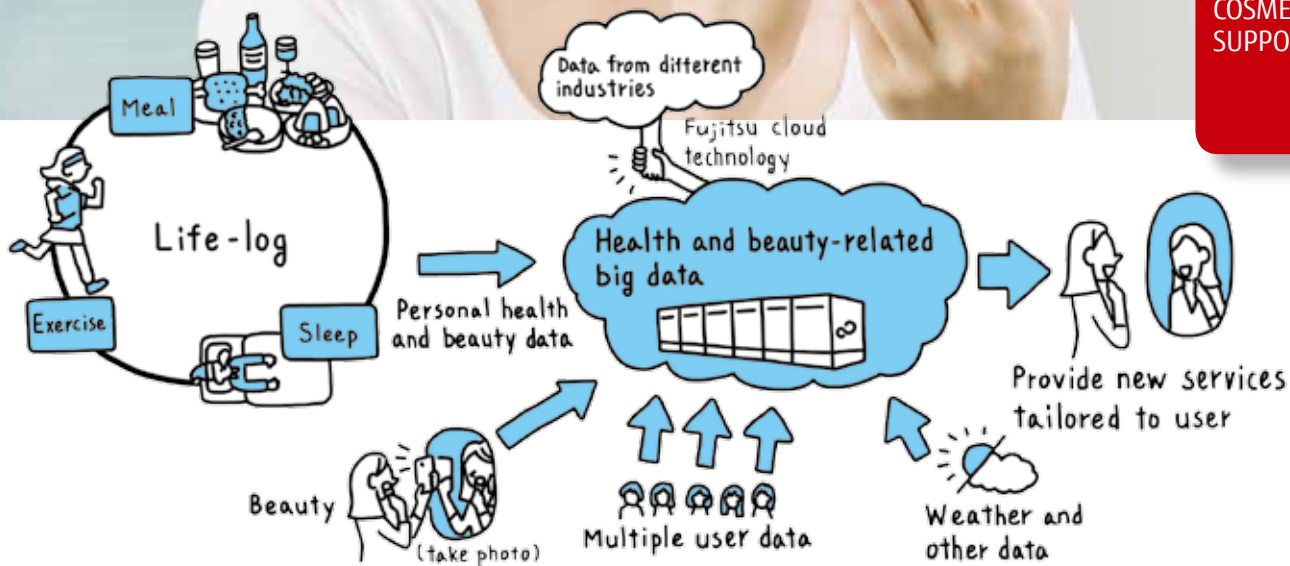
Intelligent Services Business Unit  
Intelligent Computing Division  
Senior Director

Seishi Okamoto





COSMETIC  
SUPPORT



### Skin analysis service developed from Fujitsu's strength in image processing technology



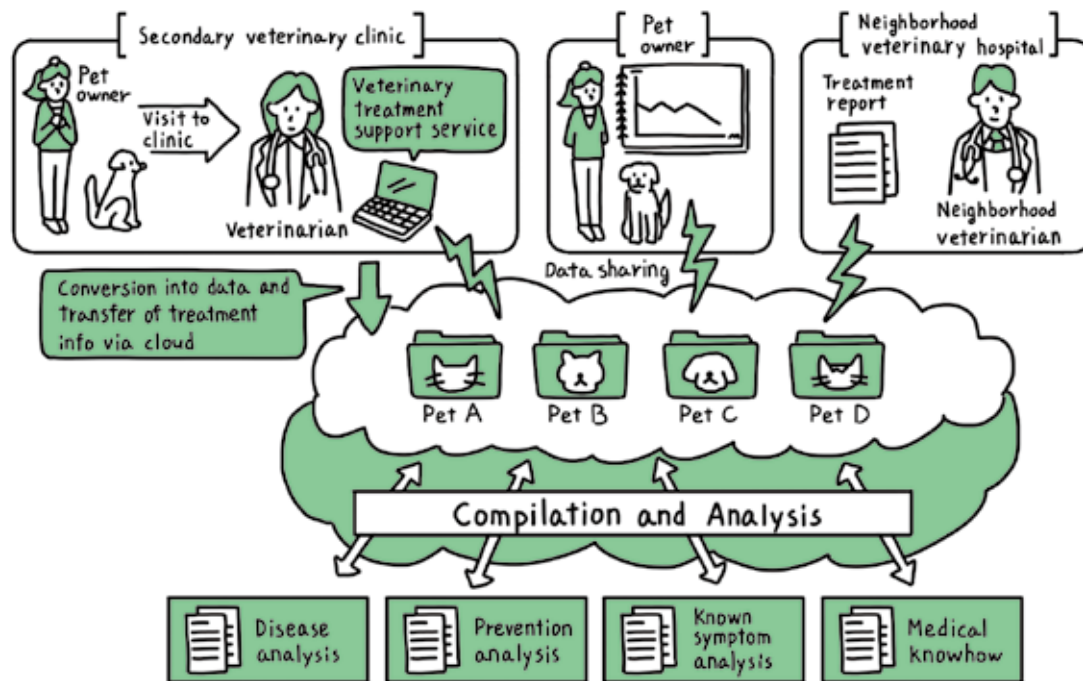
Intelligent Services Business Unit  
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Senior Manager

**Hayuru Ito**

Fujitsu, in cooperation with a cosmetics maker, has developed a service that enables people to confirm their skin condition by taking a picture of their face with a smartphone. When a picture of a face is taken together with a color reference chart made based on skin colors of approximately 4,000 people, Fujitsu's image processing technology enables the condition of spots, skin tone, and pores to be measured accurately with a smartphone app, regardless of where the picture is taken or lighting conditions. The results are stored in a cloud database, allowing users to confirm the benefits of daily care through continuous measurement. Along with skin information, if we can convert the range of other personal data collected, such as sleeping hours and the content of meals eaten, into databases, we can store a huge amount of data about our daily lives. The data and the results of its multifaceted analysis could then be provided to makers of cosmetics, beauty items and appliances. We would like to see this lead to new health and beauty-related services. Similarly, this information might be utilized in a wide range of other services, based on new insights that emerge from convergence with data from different industries. In utilizing this data collected from people, our goal is to offer more human-centric solutions around the world.



## Using cloud computing to create a comfortable society for people and animals



Fujitsu is taking the first steps toward a better society for both people and companion animals by utilizing cloud services to store a broad range of data concerning pets, including health and lifestyle information such as pet type, treatment information, number of steps walked, and ambient temperature, which can then be accessed by various providers of pet services.

For example, we have begun testing a system in which neighborhood veterinary clinics and secondary clinics capable of providing advanced treatment share treatment data over a cloud, allowing for the smooth provision of high-quality veterinary services. We have also built a system for cloud-based management of information on animals who are no longer able to stay with their owners as a result of the Great East Japan Earthquake, including owner information, and basic health data such as vaccination history. This system will not only facilitate health management for entire groups of animals, which is particularly important for animals staying in group settings, but will also allow for considerable improvements in work efficiency by standardizing operational processes, which has been difficult in disaster areas.

Animals are an essential part of human society. We hope that furthering initiatives such as these using cloud computing will make a substantial contribution to creating a society in which pet owners and local communities can live together comfortably.

Social Cloud Business  
Development Unit  
Business Planning Division  
Director

**Akira Imabayashi**

PET  
CARE



## Supporting the reconstruction effort in disaster-stricken areas, while pioneering solutions for Japan's social issues

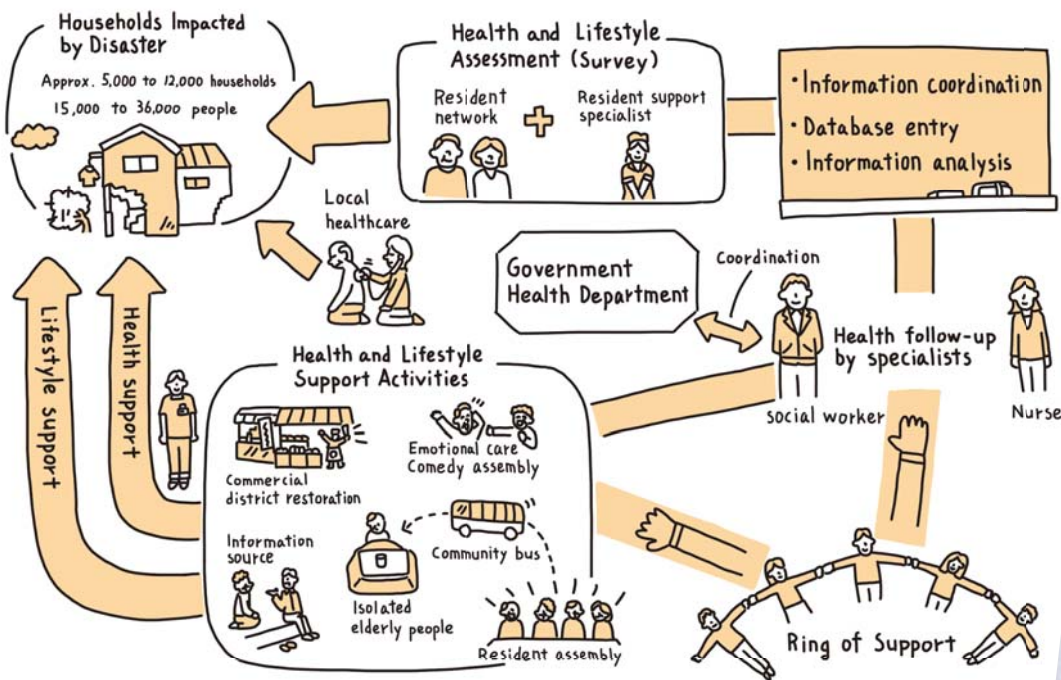
Following the Great East Japan Earthquake on March 11, 2011, local governments and communities were thrown into turmoil in trying to cope with a situation on the ground that was changing by the minute. A lack of accurate information in many cases meant that the appropriate support was not delivered. Within three days of the earthquake, Fujitsu had pulled together a special disaster support team reporting directly to an executive officer. The team was then dispatched to the frontline to provide support for affected communities by drawing on Fujitsu's strengths in system development and solutions, and its expertise in cloud computing.

In the immediate aftermath of the earthquake Fujitsu participated in Tsuna-pro, an organization of volunteers and NPOs. Fujitsu created a cloud-based database of circumstances on the ground at approximately 500 evacuation centers in Miyagi Prefecture, enabling Tsuna-pro to identify specific needs and promptly arrange for delivery of the appropriate supplies and support.

Three months after the disaster, Fujitsu aided in the establishment by Tetsuyu Institute Medical Corporation of You Home Clinic Ishinomaki, offering home-based medical care to residents of a region where the healthcare system had been completely destroyed.

Six months after the earthquake, Fujitsu assisted an organization providing support for households impacted by the disaster. We conducted a poll of all households across the region, using ICT to share the information gathered with the authorities and support organizations. This step enabled them to offer comprehensive support from both a health and lifestyle perspective.

The problems evident in disaster-affected areas—for example, isolation of the elderly and a lack of medical resources—in many respects epitomize the future Japan faces with its dwindling birthrate and aging population. I find profound meaning in the thought that our initiatives will not only hasten the recovery of disaster-affected areas, but also pioneer solutions to some of Japan's social issues.



Social Cloud Business Development Office  
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Senior Manager

Shinji Narukawa



DISASTER  
RESPONSE

