The Story Behind the Development of the "Akisai" Food and Agriculture Cloud Service

Leveraging ICT Linking Agriculture and Food to Create an Open-Ended Value Chain



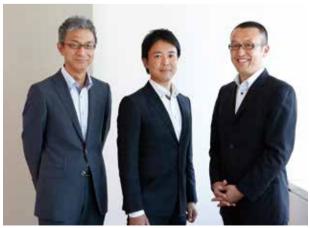
The act of withdrawing cash from a bank changed from a task performed by tellers to one done at the ATM in next to no time. A similar paradigm shift is now happening in agriculture. In October 2012, Fujitsu launched a food and agriculture cloud service called "Akisai." This revolutionary cloud service positions ICT utilization at production sites as the starting point for a value chain that links distribution, regions and consumers. So profound is this change that there may come a day when people view 2012 as the year that agriculture underwent a major transformation.

Development while Experiencing Agriculture at Ten Locations across Japan

At Fujitsu, we want to spark innovation and create new value by using ICT to address important societal issues. We were convinced that if a dramatic jump in efficiency could occur in agriculture, a sector where ICT utilization had made little headway, this could lead to a future with even greater food abundance. This was the impetus behind development of the Akisai food and agriculture cloud service.

ICT trial experiments were initiated three years prior to the start of the service. With the cooperation of nationwide agricultural production companies and others at 10 locations across Japan, we continued to develop the service while actively experiencing real agricultural work on the ground. The process in many ways resembled our experience of developing clerical operations systems for the financial and distribution sectors for the first time. We took full advantage of a method deeply embedded in Fujitsu's DNA—learn everything possible on the ground, analyze it, then give it a tangible shape.

Developed in this way, Akisai not only visualizes the production process, but also comprehensively supports management, production, and sales across the entire spectrum of agriculture management. The service also provides supply and demand adjustment and quality control processes for food processing, wholesale, retail, restaurants, and other food-related enterprises.



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In-house Farm Management in the Challenge to Unlock the Potential of Food and Agriculture

Farmers and their service instructors put <u>smartphones</u> and tablets to use in farm management on a daily basis. Farmers take pictures and fill in production logs with a few simple steps, completing the initial phase of the work. Next, the instructor assesses and runs simulations on growth conditions and other data from the logs, then provides advice on farm management. The transformation of once largely hidden knowledge of farming methods into formalized knowledge has enabled process optimization and stabilized production.

Fujitsu continues to leverage Akisai to put agriculture into practice at our Aizuwakamatsu and Numazu plants. At the Aizuwakamatsu Plant, we converted a semiconductor clean room into a production site for low-potassium leaf lettuce for patients with chronic kidney disease. Cultivation data collected is the basis for efforts to boost productivity, realizing efficient agriculture management that also encompasses coordination of distribution and sales.

For Fujitsu, Akisai is the starting point to attain our goal of transforming Japanese agriculture into an enterprise offering even higher added value. Our continuing drive to meet this challenge will usher in a new future for agriculture.

Social Innovation to Energize Japan

As of January 2014, some 160 companies were active Akisai users. Many local governments across Japan are also asking to use Akisai in the branding of their own local agricultural specialties. If practical farming knowhow can be harnessed to mass produce local specialties, this will drive forward the shift to an integration of primary, secondary, and tertiary industries promoted by the Japanese government, and make possible the creation of new employment opportunities and industries. Inquiries have also been pouring in from agricultural colleges and high schools hoping to incorporate ICT-based farm management and administration into their respective curriculums. Akisai is expected to serve as an important trigger in helping ICT agriculture gain a solid foothold in Japan.

Japanese agriculture, known for its production of delicious, high-quality agricultural goods, has enormous hidden potential, and we think it is possible to redefine each relevant business model through ICT. Stay tuned for the innovation in food and agriculture that is sure to follow.