

NTT DATA Begins Offering Vitals Measurement Service with a Smartphone Camera for Commercial Use

TOKYO – January 27, 2022 – [NTT DATA](#), a global digital business and IT services leader, today announced that it began providing a “Vitals Measurement Service” on a commercial basis from January 2022 as a new function of its cloud-based health management solution Health Data Bank[®]. This system uses a smartphone camera to record video of a subject’s face for 30 seconds, and based on this data estimates figures for blood pressure, pulse, stress level, and other health vitals. The ability to confirm a person’s mental and physical health status without the need for special devices will expand the possibilities for companies and organizations employing the service to pursue initiatives that utilize health data.

NTT DATA began by offering this service as part of the health care service for residents of Kashiwa-no-ha Smart City (Mitsui Fudosan), and plans to develop various use cases such as stress care for employees, and business services that utilize and apply health data.

Background

NTT DATA launched [Health Data Bank](#)¹, a cloud-based health management solution to collect, store, and analyze health exam results and other health-related data, in 2002. NTT DATA has since continued to offer a variety of use cases based on the utilization and application of health data, including employee health management and health administration for companies and other organizations, as well as product development based on customer health data, working in collaboration with customers and partner organizations to develop new services and expand functionality.

As part of this effort, through its open innovation forum “[From the Port of Toyosu](#)”², NTT DATA conducted a technology and customer reaction survey of numerous startup companies in Japan and overseas with services and technologies related to vital sign data. The technology of the Canadian firm [NuraLogix Corporation](#)³ was rated the highest. Utility testing for a health vitals measurement service using NuraLogix technology was conducted in April-Jun 2021 in cooperation with smart cities, as well as many food and beauty companies around the world. In October 2021, a prototype service for elderly persons was provided during the Sante Gym event to raise awareness of frailty prevention, held in conjunction with the Artistic Gymnastic World Championships (AGWC) and Rhythmic Gymnastics World Championships (RGWC) in Kitakyushu, Fukuoka Prefecture, at the event venue and at the Aeon Hall provided by Aeon Kyushu Co., Ltd. Measures such as these confirmed the utility of various use cases, and led to the start of the commercial service.

Overview of the Vitals Measurement Service

The Health Data Bank Vitals Measurement Service uses the “Vitals Measurement App” installed on a smartphone or tablet. The app analyzes data from a 30-second video of the face taken with

the device's camera, and calculates estimated figures for blood pressure, pulse, stress level, and other vitals.⁴

The service uses patented technology from NuraLogix Corporation to analyze face video data taken with a conventional smartphone or tablet camera to determine intravascular blood flow under the skin, and then analyze the changes in blood flow to estimate vital sign data.

The ability to measure mental and physical health status without the need for a special device, using just a smartphone or other device that people use on a daily basis, will expand the possibilities for initiatives that utilize health data, such as "Individual everyday health management," "Corporate employee stress care," and "Businesses using and applying health data." Of note, this service is not a medical device, and as such is not intended to be used for medical purposes (such as to diagnose, treat, or prevent illness).

- Individual everyday health management

Individuals (employees, customers, residents, etc.) download the vitals measurement app on the smartphone they use on a daily basis, and take a video of their face using the smartphone camera, to determine estimated values for health vital sign. Users can use the vitals measurements and graphs displayed in the app to determine their health status and review their health history.

- Corporate employee stress care

Companies can use the vitals measurements of employees, and other information managed through the Health Data Bank database (such as stress checks⁵ and pulse surveys⁶) to identify high-stress individuals. Linking this to changes in work responsibilities and other actions for improvement will allow companies to quickly find and respond to employees in need of stress care.

- Businesses using and applying health data

Companies and other organizations can combine the vitals measurements of customers managed in the Health Data Bank database with other customer information they have collected, and with the consent of the individual, analyze the data to offer optimal products according to the customer's health status, or confirm product effectiveness.

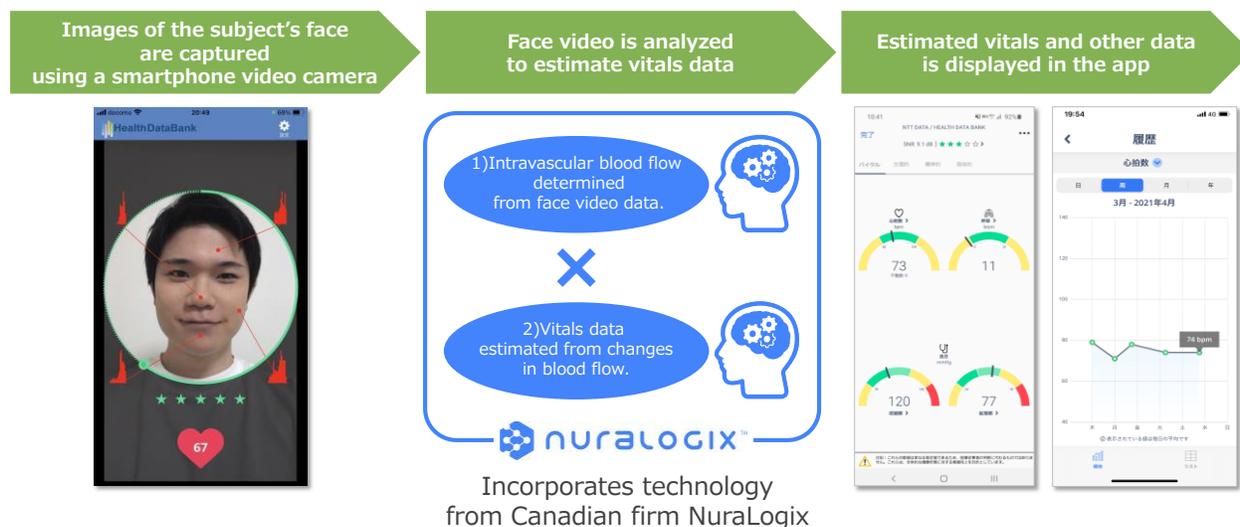


Fig. Overview of the Health Data Bank “Vitals Measurement App”

Future Goals

NTT DATA will develop various use cases for this service, such as employee health management for companies, and businesses that utilize and apply health data.

Recently, [Kashiwa-no-ha Smart City](#) (Mitsui Fudosan) decided to offer this service to its residents, and with the consent of the individual, link the vitals measurements with other services to create new value. In addition, numerous companies in beauty, foods, retail, and other industries plan to offer this service to their customers, and by combining the vitals measurements with other information managed by those companies, analyze the results to offer optimal products according to the customer's health status.

Notes

1. Health Data Bank is a cloud-based health management solution comprising a “system to support corporate health administration,” and a “system to support individual lifetime health management,” provided as a set by NTT DATA. The service was launched in 2002, and is used by approximately 3,000 companies (organizations) and 4 million individuals for health management.
2. The open innovation forum “From the Port of Toyosu,” sponsored by NTT DATA since 2013, is a program aimed at generating world-leading venture companies and innovation beyond corporate and international boundaries.
URL: <https://oi.nttdata.com/en/>
3. Nuralogix is a startup corporation established in Toronto, Canada in 2015, with “patented technology to analyze video data of faces captured using an ordinary smartphone or similar device, and estimate vital sign data.”
4. Results are “reference values” different from measurements taken using a medical device. (The Health Data Bank Vitals Measurement Service is not a medical device. It is not intended to be used for medical purposes, or to diagnose, treat, or prevent any illness.)
5. Stress checks are occupational stress questionnaires conducted by the Ministry of Health, Labour and

Welfare. Health Data Bank provides functionality to input, store, and analyze the survey results.

6. Pulse surveys are simple surveys conducted with high frequency, such as on a weekly or monthly basis, in order to assess in real time the state of stress among employees. Health Data Bank provides functionality to input, store, and analyze the survey results.

* “Health Data Bank” is a registered trademark of NTT DATA Corporation in Japan.

* “From the Port of Toyosu” is a registered trademark of NTT DATA Corporation in Japan.

* Other names of products, companies, and organizations are trademarks or registered trademarks of those companies.

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About NTT DATA

NTT DATA – a part of NTT Group – is a trusted global innovator of IT and business services headquartered in Tokyo. We help clients transform through consulting, industry solutions, business process services, IT modernization and managed services. NTT DATA enables clients, as well as society, to move confidently into the digital future. We are committed to our clients’ long-term success and combine global reach with local client attention to serve them in over 50 countries. Visit us at nttdata.com.

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