Top Message

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Fujitsu Group Environmental Action Plan Stage VII Environmental

Management

Data Overview

15

Deploying a Hydrogen Station Information Management Service Building an Energy Monitoring System in Indonesia

Leveraging ICT to Generate Innovation and Reduce Environmental Impacts

## Leverage ICT to generate innovation and reduce environmental impacts

Providing environmentally conscious solutions that promote reductions in GHG emissions



# Reducing environmental impacts by transforming the work styles of 160,000 Fujitsu Group employees

Chapter II

Reducing Our Environmental Burden

The Fujitsu Group provides a communication platform, based on in-house experience and know-how, for supporting a work style transformation for some 1 million employees of 150 major Japanese companies doing business worldwide.

In January 2012, the Fujitsu Group began building a global communication platform to effectively share and utilize the knowledge of employees across the globe, and to maximize our performance as a corporation. In February 2014, platform integration was completed for approximately 200 domestic companies and 110,000 employees. Plans are in

#### Diagram of the global communication platform



place to expand integration by the end of FY 2015 to encompass approximately 500 companies and 160,000 employees worldwide as the project progresses overseas in Europe, North America, China, and Asia & Pacific regions.

Since September 2013, we have also been actively utilizing a large-scale social networking system that is unrivaled in the world. With the new communication platform, seamless information sharing becomes possible, and the system stimulates communication while improving the speed of our business.

## Cost reduction benefits (based on Fujitsu's implementation)

- By integrating the Group's communication platforms, system development and operation/maintenance costs are reduced, with an approximate 50% year-on-year savings in operation costs Group-wide.
- With regular internal meetings, Unit-wide meetings, etc. switched to a Web-based format, we have an average of 3,000 online meetings every day. The result is reduced business travel expenses, including the time it takes to travel, by as much as 20% year-on-year in Units fully implementing the changes.

## Environmental impact reduction benefits (based on Fujitsu's estimates)

• Work style transformation reduces costs while also bringing a significant reduction in environmental burdens. Supposing a customer with employees on the scale of 10,000 people, estimates evaluated from five standpoints—meeting announcements, video conferencings, knowledge sharing, telephone communication with counterparts frequently away from their desk, and ICT infrastructure—demonstrated reductions in CO<sub>2</sub> emissions volume of approximately 80% compared to pre-platform integration levels.

Top Message

Interview to Head of Corporate Environmental Strategy Unit Human Centric Intelligent Society

Fujitsu Group Environmental Action Plan Stage VII Chapter I Contribution to Society Chapter II Reducing Our Environmental Burden  $\mathcal{P}$  Search  $\blacktriangle$  To Table of Contents  $\blacktriangleleft 16$ 

Data Overview

Deploying a Hydrogen Station Information Management Service Building an Energy Monitoring System in Indonesia

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## 2 Leveraging IoT for more efficient maintenance work

By leveraging the Internet of Things (IoT), unexpected downtime can be prevented when carrying out maintenance work that has conventionally followed the approach of "fixing what has broken." Fujitsu's SupportDesk Service, a maintenance service that makes use of the practical expertise we have cultivated inside Fujitsu, detects signs of hardware malfunction using sensing technology with automatic-alert functionality. Specialized staff members can make an appropriate response and can preempt problems.

Furthermore, a solution encompassing a further evolution of our automatic-alert and malfunction detection features is the Glovia Enterprise MM, a system that makes maintenance work in manufacturing industries more advanced. The system collects operating information in real time from sensors attached to equipment currently in use. Sensor data is analyzed using big-data statistical analysis technology to predict the timing of malfunctions for each specific piece of equipment. We can now periodically replace the right components and realize benefits from a cost and environmental impact perspective. Maintenance work carried out on site is also being done more efficiently with the help of smart devices. These efforts are decreasing the time it takes until we can report that work is complete, and are also contributing to improved customer satisfaction.

#### Environmental impact reduction benefits (based on Fujitsu's estimates)

 Maintenance work that maximally leverages the IoT decreases environmental impacts accompanying component shipping and the dispatch of maintenance staff, which has shown reductions in CO2 emissions volume of approximately 80%.

#### Solution 3 Reducing the environmental burden of ICT infrastructure with the cloud

The ability to use cloud services in this day and age has become a matter of course. Cloud services involve the shared use of high-performance servers installed in datacenters to allow customers to use whatever functions they need via the Internet. This reduces the cost of systems adoption by as much as 20% and makes it easier for customers to adopt IT systems. Additionally, since customers are relieved of the need to have their own servers and storage equipment, the electric power that would have run such ICT equipment is saved, which contributes to reducing environmental impacts. Fujitsu is building datacenters with full disaster prevention and security features, through which we provide a variety of services to our customers. One of the services we are providing to healthcare institutions is a digital medical record system called HOPE Cloud Chart.

#### Case Study Aiseikai Hospital

At Aiseikai Hospital, patient information that had been individually managed is now unified on a cloud-based medical fee and medical record system. This system brings efficiency to a wide range of cumbersome healthcare clerical tasks. By using a cloud environment for ICT infrastructure, the hospital gains security and cost benefits, delivers peace of mind to its patients, and also contributes to reduced

environmental impacts. "Adopting the cloud service has helped us reduce our environmental impact, has increased the amount of time we can spend with patients, improved the quality of our healthcare, and reduced the amount of time patients spend waiting at the payment counter. In the future, we will use ICT to further improve the quality of regional healthcare."



**Shinya Mitsui** Managing Director, Aiseikai Hospital

# Solution<br/>4Development using<br/>3-D simulators

Environmental

Management

Fujitsu is providing manufacturing industries with a Virtual Product Simulator (VPS) that incorporates the expertise from our own monozukuri (craftsmanship) experience so that those industries can launch competitive products in a timely fashion. Conventional approaches entailed multiple prototypes made to test the best ways to assemble, operate, and repair products. With the VPS, however, 3-D CAD data can be used to virtually test products, reduce the number of prototypes needed, and realize development cost savings. Also, since tests can optimize production steps, this approach helps save space in production plants and use personnel and equipment more efficiently.

An even more significant feature is that multiple operators can view the same image simultaneously in real time, allowing them to remotely verify designs while working

in different locations. Building a development framework that unifies the company units involved means that design can be carried out with a more effective emphasis on product lifecycle, which facilitates product maintenance and leads to



improvements in product recycling.

#### Environmental impact reduction benefits (based on Fujitsu's estimates)

• Being able to remotely test designs simultaneously from different locations allows for reductions in travel time and business trips needed for meetings, which has shown reductions in CO<sub>2</sub> emissions volume of approximately 30%.