



November 16, 2017

To whom it may concern

TOKAI Holdings Corporation  
Katsuhiko Tokita, President & CEO  
(Code No. 3167 Tokyo Stock Exchange First Section)

## **Testing of Equipment Management IoT Platform Commences - Japan's First Initiative to Enhance Energy Efficiency of Data Center Equipment**

TOKAI Holdings Corporation announced today that its wholly-owned subsidiary, TOKAI Communications Corporation (hereinafter "TOKAI COM"), began testing an equipment management system at its data center (see attachment). Employing an IoT<sup>\*1</sup> platform, the system is designed to boost the energy efficiency of data center equipment and streamline equipment management.

In 2016 TOKAI COM's data centers were certified as Eco-Friendly Data Centers<sup>\*2</sup> used for the Tokyo Metropolitan Government's initiative to help businesses to adopt cloud computing. These data centers have been recognized for their superior efficiency, energy-saving design, and outstanding operation. TOKAI COM aims to establish more efficient data center operation through the testing. It will work to help customers save energy while doing its share to save the environment.

\*1 IoT stands for the Internet of Things. It is a system of sensors, devices, and other objects, connected to the cloud or servers via the Internet, that control one another through the exchange of data.

\*2 A designation by the Tokyo Metropolitan Government's Bureau of Environment certifying and promoting data centers that are making efforts to reduce their environmental footprint. The certification program and period ended on March 31, 2017.

[http://www.kankyo.metro.tokyo.jp/climate/large\\_scale/dc.html](http://www.kankyo.metro.tokyo.jp/climate/large_scale/dc.html)

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To whom it may concern

TOKAI Communications Corporation

**Testing of Equipment Management IoT Platform Commences via Joint Initiative of 4 Corporations**  
**- IoT-based Initiative to Enhance Energy Efficiency of Shizuoka Data Center Equipment Using Equipment Data**

TOKAI Communications Corporation (headquartered in Aoi-ku, Shizuoka City, Shizuoka; headed by Katsuhiko Tokita, President & CEO; hereinafter “TOKAI COM”) has started testing an equipment management system that employs an IoT<sup>\*1</sup> platform at its Shizuoka Data Center. Aimed at enhancing the energy efficiency of equipment and streamlining equipment management, the testing is being conducted jointly with SightLine Systems Japan K.K. (headquartered in Minato-ku, Tokyo; headed by Yusuke Nakagawa, President), NTT Facilities, Inc. (headquartered in Minato-ku, Tokyo; headed by Atsushi Ichihoshi, President & CEO), and Takebishi Corporation (headquartered in Ukyo-ku, Kyoto; headed by Isamu Ogura, President).

The testing is designed to visualize the operation of equipment used at the Shizuoka Data Center by collecting and accumulating data from that equipment on everything from the amount of electric power consumed by servers and air conditioning systems to ambient temperature, humidity, door opening and closing events, and meteorological data. It is also aimed at streamlining data center operations through correlation analyses and forecasts.

The roles played by the companies involved in the testing are as noted below.

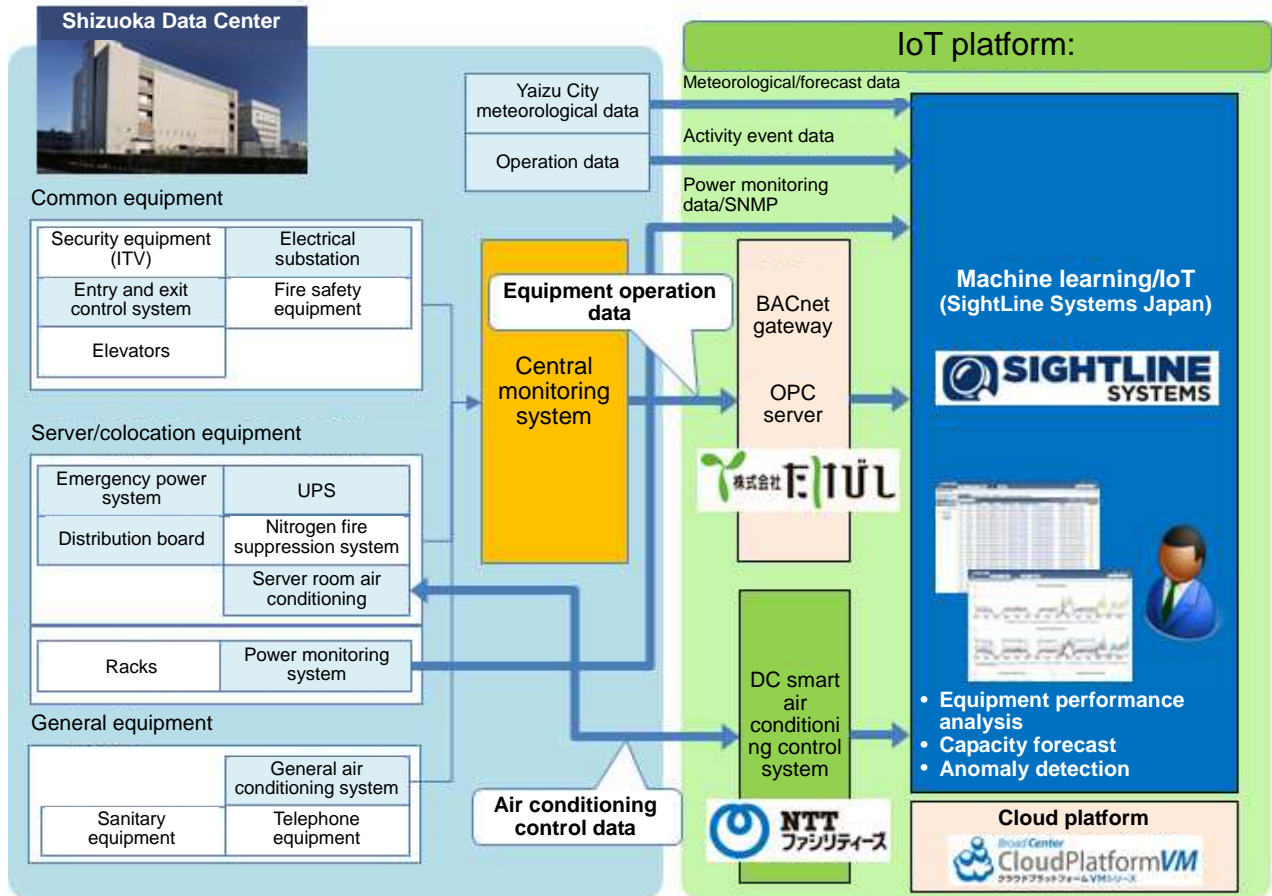
TOKAI Communications Corporation	<ul style="list-style-type: none"> <li>• Provision of an IoT platform: Building a platform on CloudPlatform VM<sup>*2</sup></li> <li>• Implementation work: Such as data collection settings</li> </ul>
SightLine Systems Japan K.K.	<ul style="list-style-type: none"> <li>• Provision of SightLine EDM<sup>*3</sup>: Accumulating and analyzing collected data</li> <li>• Implementation support: Consulting on implementation</li> </ul>
NTT Facilities, Inc.	<ul style="list-style-type: none"> <li>• System architecture and support in providing air conditioning system operation status, indoor temperature, and other data from TOKAI COM’s data center</li> </ul>
Takebishi Corporation	<ul style="list-style-type: none"> <li>• Provision of DeviceXPlorer OPC Server<sup>*4</sup>: Obtaining data from air conditioning systems</li> <li>• Implementation support: Data collection support</li> </ul>

■ Testing objectives

- (1) Enhancing maintenance efficiency and productivity of data center equipment
  - Cut utility costs
  - Increase cooling efficiency of individual air conditioning systems
  - Visualize factors impeding cooling and identify ways to improve cooling that are not related to air conditioning systems
  - Verify the efficacy of anomaly detection in air conditioning systems
- (2) Management
  - Manage operation based on the plans and actual operation of air conditioning systems
  - Manage air conditioning systems using a service level and automatize management
  - Manage air conditioning systems based on a capacity forecast and automatize management

- Centralize monitoring of multiple sites and vendors
  - Analyze the causal relationship between temperature and system performance
- (3) New discoveries
- Verify whether collecting and analyzing various types of data will deliver new insights

## ■ Testing Flowchart



If the testing provides substantial results as well as the return on investment needed for service operations, TOKAI COM will launch an equipment management IoT platform service with an eye to expanding the service to not only other companies' data centers but also office building equipment management and more.

[For reference]

### ■ About SightLine Systems Japan K.K.

SightLine Systems Japan offers security compliance monitoring, enterprise performance data management (performance management), and capacity management solutions as well as related services. Visit <http://www.sightlinesystems.co.jp/> for more information about the company.

### ■ About NTT Facilities, Inc.

NTT Facilities provides one-stop building and energy facility services including everything from planning, design, and construction to maintenance, operation, and management. Visit <http://www.ntt-f.co.jp/> for more information about the company.

### ■ About Takebishi Corporation

Takebishi Corporation offers extensive lines of factory automation equipment and industrial machinery as well as semiconductor, air conditioning, and telecommunications equipment along with related engineering and installation services. Visit <http://www.takebishi.co.jp/> for more information about the company.

\*1 IoT

IoT stands for the Internet of Things. It is a system of sensors, devices, and other objects, connected to the cloud or servers via the Internet, that control one another through the exchange of data.

\*2 CloudPlatform VM

CloudPlatform VM is TOKAI COM's cloud service. It provides a highly reliable and highly available virtual server environment, which is managed by TOKAI COM's data centers, via a network.

\*3 SightLine EDM

SightLine EDM is a comprehensive performance management tool offered by SightLine Systems Japan. It collects, combines, analyzes, and manages information system and business data to manage performance and capacity for the overall enterprise business process.

\*4 DeviceXPlorer OPC Server

DeviceXPlorer OPC Server is an OPC server from Takebishi Corporation.

\* All other company, product and service names, logos, etc. mentioned herein are trademarks or registered trademarks of their respective owners.

**[Inquiries about the service]**

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