

News Release

FOR IMMEDIATE RELEASE

Hitachi Launches “O&M Support Digital Solution”, Water Supply and Sewerage Cloud Service Utilizing IoT

Supporting efficiency improvements in the operation and maintenance work and handing down know-how to contribute to solving management issues

Tokyo, September 10, 2018 --- Hitachi, Ltd. (TSE: 6501, “Hitachi”) today announced the launch of “O&M⁽¹⁾ Support Digital Solution” (“this Service”) on October 1. This Service will contribute to the stable operations of plants and sound management by collecting and analyzing a range of data concerning the operations of water supply and sewerage business, utilizing digital technologies such as Artificial Intelligence(AI) and Internet of Things(IoT), and by supporting visualization of the state of facilities and operation and maintenance work. This Service utilizes Hitachi’s IoT platform Lumada. Hitachi will expand the functions of this Service gradually in the future, and provide it for water supply and sewerage business entity as a comprehensive digital solution to help solve management issues in overall water supply and sewerage business.

In recent years, there have been greater needs for further efficiency improvements in the business operations of domestic water supply and sewerage due to the required investment in the maintenance and updates of deteriorated plants, and decreases in business income caused by the population shrinking. In addition, handing down know-how has become a challenge due to the decrease in skilled operators and engineers.

Against this backdrop, Hitachi is launching “O&M Support Digital Solution”, a cloud service to support visualization, labor saving and efficiency improvements in the operation and maintenance work, and handing down know-how. This Service utilizes advanced digital technologies such as AI, analytics and Augmented Reality(AR) to collect a variety of data on the cloud by using IoT, including facility information, operational information, work records, and malfunction and repair information concerning water supply and sewerage business operation.

As the first step of this Service, Hitachi will start to provide three functions in October 2018. The equipment maintenance support function makes it possible to refer to manuals and the malfunction and repair history, and provide work navigation and remote instructions by skilled workers with glasses-type wearable devices or

inspection terminals (tablets) by utilizing AR. It supports securing the safety of workers who are inexperienced in maintenance and inspection work, the improvement of work quality, and the handing down of know-how. The plant monitoring function utilizes IoT to collect data from sensors and visualize the state of facility operations. The equipment ledger function digitizes information such as the number of years of operation of facilities, their malfunction and repair history, inspection results inputted by inspection terminals and carries out centralized management. These three functions are coordinated to support efficient asset management, improvement in the operation and maintenance work and efficiency enhancement.

Hitachi also plans to provide a function to improve efficiency in the operation and maintenance work by utilizing AI and analytics. Currently, Hitachi conducts verification tests at several plants where it provides contracted operations. The functions to be provided in the future include: the equipment condition diagnosis function that enables CBM⁽²⁾ by diagnosing the state of facilities based on the past operation performance data and inspection data of the main equipment and facilities; the plant operation support function to support efficient operations based on know-how extracted from the operation performance data of skilled workers by utilizing AI; the water quality prediction function to predict raw water quality by the use of AI with the combined use of the past operation performance data with open data, such as environmental conditions (weather and water sources), and support the optimization of the chemical dosage.

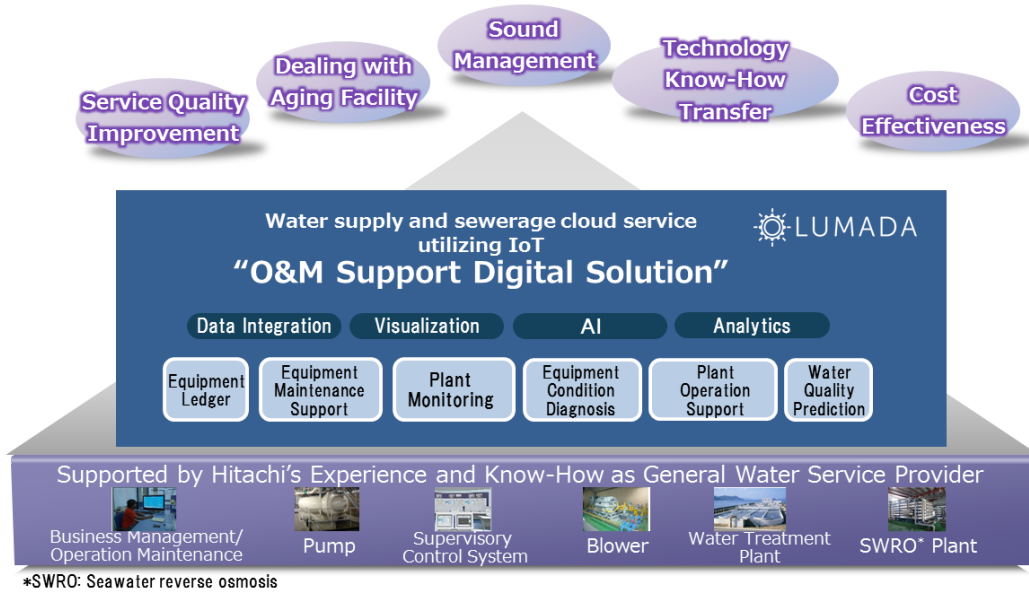
Hitachi will contribute to solving numerous issues faced by clients who are involved in water supply and sewerage business by combining its track record and know-how of Operational Technology(OT) and products that have been cultivated over the course of many years as a comprehensive water service provider, with Information Technology(IT) for which Hitachi possesses abundant experience and knowledge in diverse fields.

(1) O&M: Operation & Maintenance

(2) CBM: Condition based Maintenance. It represents the concepts of taking into consideration the status of deterioration and malfunction risks to the facilities to determine the need for maintenance, and implementing maintenance before a malfunction occurs or the facilities reach their usage limits.

Image of O&M Support Digital Solution

Contribution to solving management issues of water supply and sewerage business



About Hitachi, Ltd.

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges, combining its operational technology, information technology, and products/systems. The company's consolidated revenues for fiscal 2017 (ended March 31, 2018) totaled 9,368.6 billion yen (\$88.4 billion). The Hitachi Group is an innovation partner for the IoT era, and it has approximately 307,000 employees worldwide. Through collaborative creation with customers, Hitachi is deploying Social Innovation Business using digital technologies in a broad range of sectors, including Power/Energy, Industry/Distribution/Water, Urban Development, and Finance/Social Infrastructure/Healthcare. For more information on Hitachi, please visit the company's website at <http://www.hitachi.com>.

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