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Press Release

Monday, September 25, 2017 Komatsu NTT DOCOMO SAP **OPTiM**

Agreement Regarding the Joint Development and Operation of "LANDLOG," a New Platform That Connects All Construction Production Processes

(The original press release was released on July 19, 2017.)

Komatsu Ltd. (president and CEO: Tetsuji Ohashi; hereinafter referred to as "Komatsu"), NTT DOCOMO INC. (president and CEO: Kazuhiro Yoshizawa; hereinafter referred to as "NTT DOCOMO"), SAP Japan Co., Ltd. (president: Yuzuru Fukuda; hereinafter referred to as "SAP"), and OPTiM Corporation (president: Shunji Sugaya; hereinafter referred to as "OPTiM") announced on July 19, 2017 an agreement to jointly design and operate a new platform named "LANDLOG" (temporary name) that will connect all "things" related to the construction production process, such as land, equipment, and materials. The companies are aiming for a launch in October 2017. It should be noted that this development has only minor influence on financial performance for the current fiscal year for all companies.

1. Issues facing the construction industry

In the Japanese construction industry, it is expected that out of approximately 3.4 million (as of 2014) skilled workers, 1/3, or approximately 1.1 million, will likely retire within the next 10 years due to old age, and as a result, labor shortages will become a major issue. All industries have been actively assimilating ICT into construction production processes, such as measurement, processing, and inspection, with the aim to increase productivity, as construction production processes are used by a wide range of construction companies with differing specialties. However, the status quo is such that various types of data are managed individually by each company and that a system for unifying and optimizing management system for all construction production processes is not in place. Furthermore, in order to significantly improve the safety and productivity of construction sites, it is effective to use a platform that gathers and centrally manages all construction production process data.

2. Goals of the new LANDLOG platform

Komatsu, as well as NTT DOCOMO, SAP, and OPTIM, which have all supported Komatsu's IoT initiative to connect construction sites for many years, have shared the same ideas regarding the above issues and the needs of society. Therefore, these four companies decided to take on the challenge of designing and operating a new platform that can become the IoT foundation for all construction production processes.

Information within this press release is accurate as of its release and may be subject to change without notice.





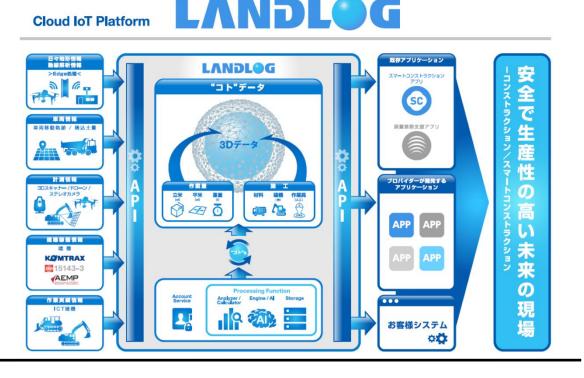




Komatsu currently operates the KomConnect platform as part of its Smart Construction, a solution service for construction sites. KomConnect is designed with two-level functionality—a function to gather, store, and analyze data from all construction production processes, with another function to provide an application that utilizes the data stored in the platform and that contributes to increased productivity and workplace safety. In LANDLOG, the functionality of gathering, storing, and analyzing data will be expanded, and data will be provided to various application providers based on requests from construction companies and others. KomConnect is a platform that was designed to focus on the construction process executed by construction equipment. However, LANDLOG is a new platform that comprises all elements of the construction production process. Komatsu plans to transfer some functionality of KomConnect to LANDLOG for further expansion. LANDLOG will focus on solving issues at construction sites as one provider of solution applications.

The new LANDLOG platform will gather various information regarding the physical elements of all construction production processes. Based on this information, many providers will offer solution applications with appropriate privilege management and will also operate their own stores where such products can be sold freely. As a result of adoption among a large population of users that support construction sites, the platform will accelerate progress toward safer, more-productive construction sites.

[Concept]



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3. Roles of each company

Each company will utilize its strengths in order to create and develop the platform business.

- 1) The role of Komatsu
 - (a) Provide know-how on three-dimensional survey of changing terrain
 - (b) Provide know-how on visualizing capital invested in the construction production process
- 2) The role of NTT DOCOMO
 - (a) Provide know-how and services on wireless communication including LTE, LPWA, and 5G
 - (b) Provide know-how on building solutions such as IoT and relevant data collection, visualization, and analysis
- 3) The role of SAP

Support the New Platform business through design thinking and SAP Leonardo

4) The role of OPTiM

Provide know-how on AI and IoT as well as utilization of Cloud IoT OS and others

4. Application providers

Application providers use the data stored in this new platform to develop applications and provide them to users such as construction companies in order to improve the safety and productivity of the overall construction production process. In the future, the companies will seek many new providers.

End of press release

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