Glossary

KYB-IoT Platform

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1 Overview of KYB-IoT Platform

Recently, KYB has also become involved in many projects making use of data and digital technology.

As these projects increase in number, it is necessary to build a Data Collection Foundation that continually collects and accumulates big data and a Data Analysis Foundation for accelerating data utilization including Business Intelligence (BI) and Artificial Intelligence (AI).

So, the DX Department is promoting the building of an IoT Platform as a Data Collection/Analysis Foundation so that KYB can internally utilize digital technology widely and correctly. Fig. 1 shows a conceptual illustration of the KYB-IoT Platform.
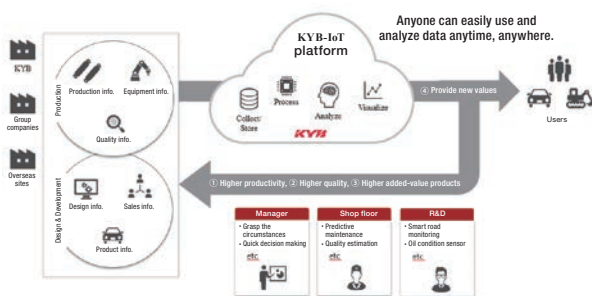

Fig. 1 KYB-IoT Platform

The cloud-shaped area in Fig. 1 represents the KYB-IoT Platform that has been implemented with the cloud service available from Amazon Web Services (AWS).

Data from the Production and Design & Development fields (e.g., plant facilities and products under development) held by KYB and its affiliates is collected, processed, analyzed and visualized to provide new values to external users or customers and to be available to internal users for improving productivity, quality and added-value products.

2 Major Functions of KYB-IoT Platform

To ensure that the KYB-IoT Platform can effectively deliver in the future, the following three technical functions are important:

① Data collection

It is essential to build a system that can quickly and continuously collect and store data from individual departments without consuming too many man-hours to analyze and utilize the big data.

② Tampering-proof

All accesses to the system should be recorded in a log.

In case of tampering, the system automatically records the event and transmits alert e-mails. This will ensure transparency around internal data management and access, providing safety and security to customers.

③ Analysis and management

In an AI development project, reproducibility can only be secured with all of the three elements: source code, data, and parameters.

Data is changing even during operation. It is essential to build a foundation for managing data in sets and for continual relearning and remodeling, in order to achieve long-term operation.

It is also needed to develop human capital for data utilization to ensure that information on the KYB-IoT Platform is accessible by anybody in the company and can be viewed in various ways as well as be analyzed in a simple way on Web browsers during daily work as standard.