

Renewal of CO₂MPAS, a CO₂ visualization system -Accelerating Carbon Neutral Support by Utilizing Cloud Accumulated Data-

Toda Corporation (Head Office: Chuo-ku, Tokyo; President: Otani Seisuke) has jointly developed CO₂MPAS with Conexio Corporation (Head Office: Minato-ku, Tokyo; President: Metoki Riichiro) to help visualize CO₂ emissions from buildings and make buildings carbon-neutral. In the past, energy data was stored in local devices for each building, but with this renewed system, data is accumulated in the cloud, making it possible to more efficiently provide an energy conservation enlightenment screen through signage and conduct energy management.

1. BACKGROUND OF DEVELOPMENT

Against the backdrop of various natural disasters caused by global warming, carbon-neutral initiatives are accelerating worldwide, and the goal is to realize a decarbonized society by 2050. Among them, grasping the energy consumption of buildings is synonymous with the grasping of Scope 3*1 in supply chain emissions for general contractors, and it is required to develop a data utilization infrastructure to contribute to energy conservation and carbon neutrality in buildings.

※1 Greenhouse gas indirectly emitted by companies other than Scope 1 and Scope 2: emitted by the business itself.

2. SYSTEM OVERVIEW

This system accumulates data such as power consumption, gas consumption, and solar power generation measured by sensors installed in the building in the cloud via IoT gateway (Fig. 1). The accumulated data is used for both signage and analysis functions.

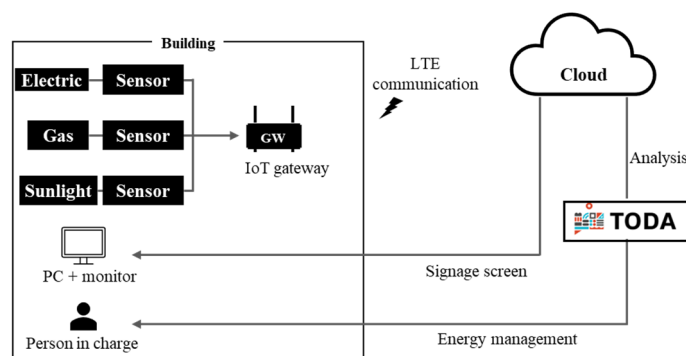


Figure 1 System configuration diagram

3. SIGNAGE FUNCTION

The signage function uses the emission factors of each energy supplier to convert actual emission values into CO₂ in the form of a yearly/monthly chart (Fig. 2). In addition, based on the accumulated data, it calculated predicted values based on building characteristics by determining the percentage of each month's emissions. Judgment can also be made on energy savings based on these actual and projected values vs the target values set at the beginning of the fiscal year. In addition to graphs, there are enlightenment screens that are updated regularly to stimulate awareness of energy conservation, and these screens can be displayed in rotation.

