A service that visualizes data from a combination of eight types of sensor data.
Sensor data can be automatically collected in the cloud and visualized on a single dashboard screen without changing the network or other aspects of the on-site environment. The screen can be customized by the customer, and data can be acquired on temperature, humidity, barometric pressure, acceleration, geomagnetism, illuminance, UV, and current.
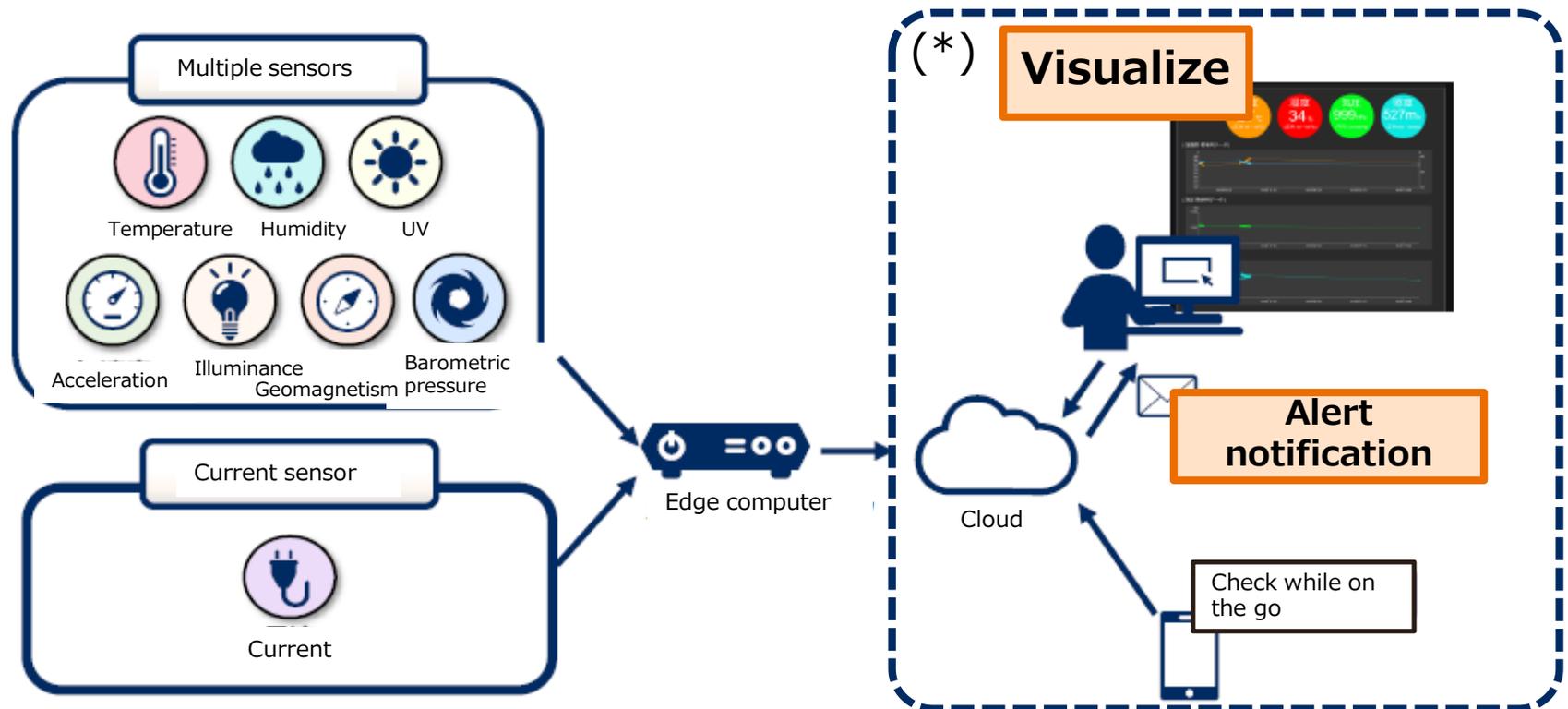
*To visualize the collected data, we use SensorCorpus, an IoT platform provided by INFOCORPUS Inc.
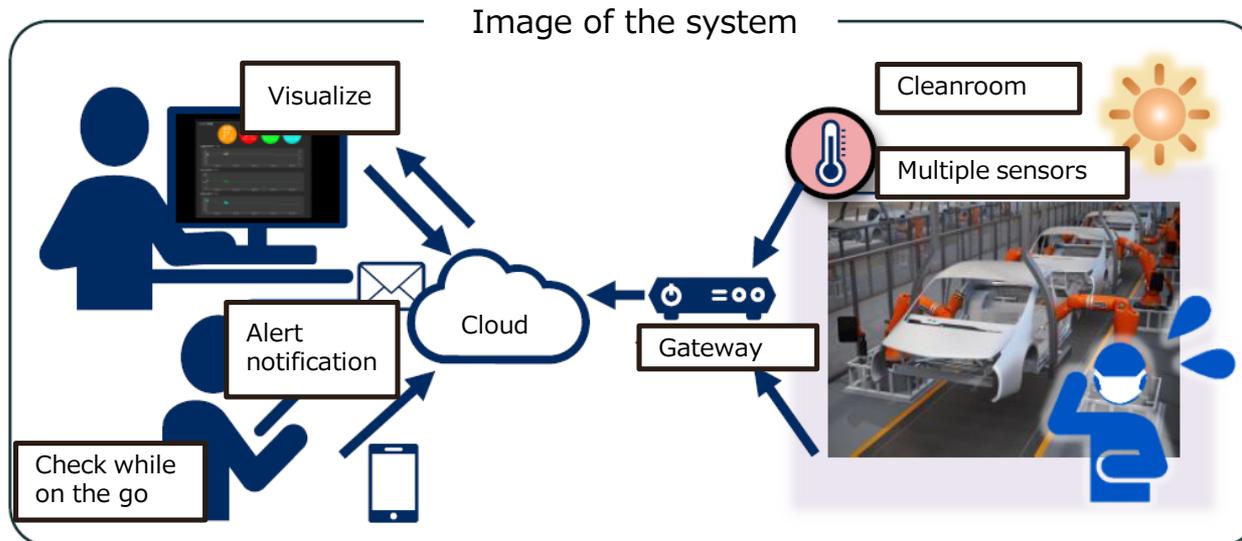
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Case Study on the Implementation of the NEC IoT Sensor data Visualization Service_(not for sale outside Japan)

Issues that need to be addressed

■ The work environment is prone to high temperatures and humidity, making worker health management an important issue. Managers checked the temperature and humidity of the site regularly to ensure the safety of workers, but this was a time-consuming task.

■ As mentioned above, managers were responsible for not only managing the work but also the work environment, which meant that multiple managers were sometimes required to handle the overall workload.

Effect of implementation

■ Using multiple sensors to automatically collect temperature, humidity, illuminance, and barometric pressure data of the work environment has made it possible to visualize and accumulate data. (The collected data is used for managing the work environment)

■ Enabling managers to focus on their core business helped to achieve workforce optimization.

Image of the system

Visualize

Alert notification

Cloud

Check while on the go

Gateway

Cleanroom

Multiple sensors

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Among the eight risks of climate change indicated by the United Nations' Intergovernmental Panel on Climate Change (IPCC), the risks that can be mitigated by this solution are the following.

(The numbering of the items below corresponds to the numbering of "the eight risks of climate change" on the following page.)

4. Death and ill health caused by heat waves which particularly affect vulnerable groups in urban areas.

Factories and gymnasiums are among some of the indoor environments prone to high temperatures and humidity due to heat waves. However, such temperature changes in a specific area cannot be detected by general weather observation data.

By attaching a temperature sensor that automatically collects temperature, humidity and other on-site information necessary to control the workplace environment, **an alert can be sent by email notification before the temperature or humidity goes above the threshold.** The alerts help prevent or reduce heat-related injury or illness by prompting appropriate measures to be taken, such as adjusting the on-site temperature and humidity or encouraging hydration.

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The Eight Risks of Climate Change

Source: 5th Assessment Report of IPCC (2014)

1. Damage caused by rising sea levels and storm surge in coastal areas

2. Damage caused by flooding in urban areas

3. Breakdown of infrastructure and other societal functions due to extreme weather events

4. Death and ill health caused by heat waves which particularly affect vulnerable groups in urban areas

5. Threat to food security caused by rising temperatures and drought

6. Loss of livelihood and income in rural areas due to insufficient water resources and reduced agricultural productivity

7. Loss of marine ecosystems that are vital to coastal water areas

8. Loss of services provided by terrestrial and inland water ecosystems

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