Vertuoz
by ENGIE

- Sustainable, energy-efficient schools
- Overkiz smart gateways
- Overkiz cloud platform
- Vertuoz Pilot clout platform based on Ubiant artificial intelligence

Project

As part of an energy performance contract launched by the City of Paris, 140 schools were renovated and equipped in order to reduce by 30% CO_2 emissions and energy use in the city's schools.

To complete this project, Vertuoz by Engie chose Overkiz in association with Ubiant for an infrastructure of connected objects to manage the ins and outs of classrooms and upload data to the monitoring tool used by Vertuoz by Engie and the City of Paris. This digital platform uses a building's data to make it smarter, more efficient, and therefore more comfortable for its occupants.

Le challenge

- Combine connected objects to artificial intelligence to allow energy consumption (mainly heating and lighting) only when needed, based on when occupants are present.
- Install more than 1,000 smart gateways to manage 1,400 classrooms.
- Collect usage data.
- Control objects located in schools.

Key figures

1,400	-30%	1,000	15,000
EQUIPPED CLASSROOMS	IN CO_2 EMISSIONS AND ENERGY USE	MINIBOX GATEWAYS INSTALLED	SENSORS INSTALLED

COMPANY PROFILE

ENERGY COMPANY

INTERNATIONAL GROUP
150,000 EMPLOYEES

THERMAL RENOVATION, HEATING, AIR CONDITIONING, RESIDENTIAL AND TERTIARY ENERGY USE MANAGEMENT

2017 SALES: € 65 BILLION

140 CONNECTED SCHOOLS
BETWEEN 2016 AND 2018

The Overkiz solution

Overkiz provides an end-to-end IoT infrastructure consisting of smart gateways, a cloud, and applications to help Vertuoz by Engie install and manage a powerful building automation solution.

1,000 white-label Overkiz Minibox

- Ethernet connection with a router
- Communication with connected objects via **enocean** wireless, battery-free technology
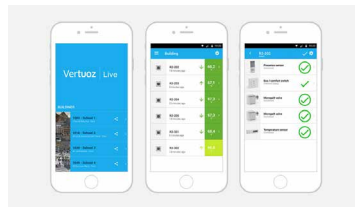- 15,000 installed temperature and CO_2 sensors, presence detectors, switches and radiator valve servo-motors

Minibox Overkiz

Customer router

Overkiz cloud

CO_2

IOT Cloud

- Embedded software for wireless communication
- 100% over-the-air (OTA) management
- Secure end-to-end management

Overkiz Cloud

Vertuoz Cloud

Overkiz applications

- B2B API for cloud-to-cloud management

BENEFITS

For Vertuoz by Engie

Development of a new service: Vertuoz Pilot by Ubiant

Responsive buildings, ready for the energy transition and adapted to the needs of switching off and self-sufficiency

Solutions that can be easily integrated into the IoT network, the smart grid, and the corporate business model

Unparalleled management of building occupancy

A digital tool that is easy to install and easy to use

For the City of Paris

More economical, versatile, and higher value buildings

Reduced installation time and costs thanks to the elimination of cables

ROI of 3 to 7 years

An information source and communication tool for occupants

Preferred interface between the system and the occupant via the mobile application

Guaranteed comfort and security for 21,000 pupils