City on CLOUD

Smart & Secure City Platform

# SMART and SECURE CITIES

ÖLÇSAN
"kalitenin ölçüsü"

Smart Cities

Our City on CLOUD (CoC) platform is the outcome of the H2020 REMOURBAN Project started in 2015. The CoC manages renewable energy resources, intelligent building/home automation, electric cars, and general lighting systems as well as many other systems via IoT modules in the field.

ÖLÇSAN provides services such as monitoring, controllable and efficient use of resources that can prevent the problems to be experienced in the future of the world through Smart City Consultancy. With the local and national software, it develops, it helps plan the future in establishing new cities. In addition, it contributes to the controlled use of resources with applications and projects that add value to existing cities.

ÖLÇSAN, which provides services in a broad network from climate change to combating cybercrime in urban life with the rapid shift in technology, carries out sustainable planning and Masterplan studies that increase the quality of life with domestic and national artificial intelligence skills and expert staff. It helps to plan the future well through Masterplan studies carried out in urban transformation or newly established areas.
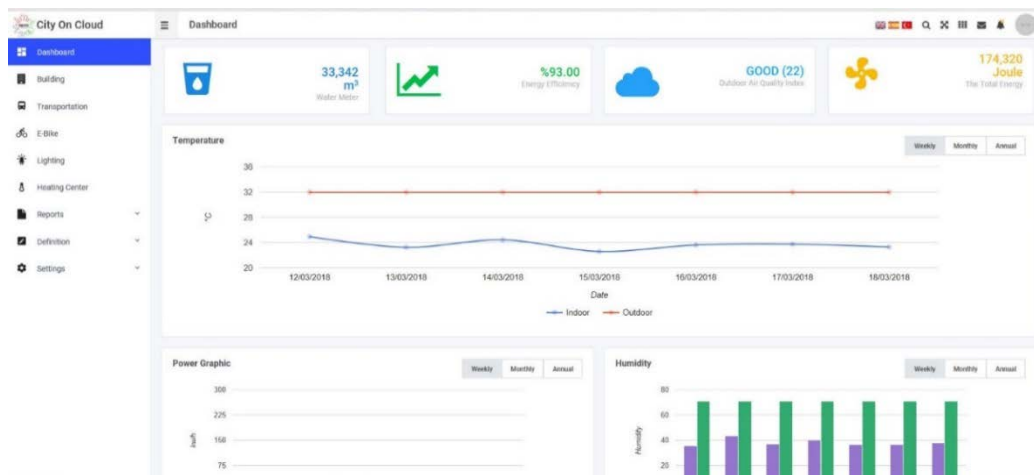
Some functions supported by City on CLOUD platform;

- Transportation and car parking management
- Building energy efficiency
- In and outdoor lighting system management
- Electric bus, car and bicycle management
- Renewable energy management
- Air quality measurement
- Central heating and cooling system
- Access Control System
- Integrated Plate Number Recognition, UHF reader and TAG's
- CCTV and Perimeter Security System support
- Gun shot and drone detection system
- Face and object detection and recognition

**Smart & Secure City Platform**

- Alarm monitoring
- IoT ve Security integrated platform
- Vector based graphical maps
- Event monitoring
- Different 3rd party IoT module and
- sensor support
- End to end secure communication
- Mobil device support

Advantages:

- IoT and Security in one platform
- Cloud support
- Easy integration for 3rd party devices/application via WEB services

System Management

Our City on CLOUD application; AGASY- Smart Lighting Software, can provide additional support to the security of your institution and campus by being integrated with our STMS - Integrated Physical and Cyber Security software and KIMO - Access Control software, or it can be used stand-alone only for Smart City management.
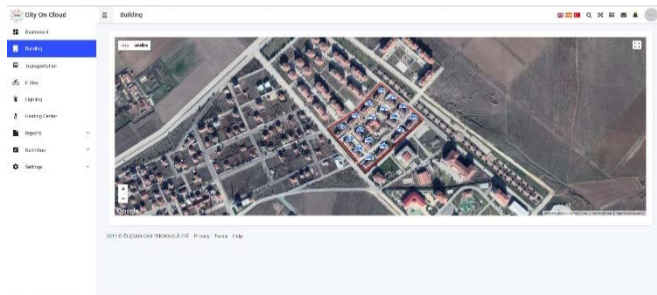
City On CLOUD – Operation Map

This monitoring screen instantly displays all buildings and vehicles on the map in real-time. Administrator and support divisions monitor devices on the screen, review status reports and intervene remotely.

Intelligent Lighting System

AGASY (Smart General Lighting System Management) platform developed within Smart and Safe Cities; It manages the lighting systems in indoor and outdoor spaces with IoT modules and saves money by automatically reducing and/or turning off the unnecessary lighting power. It reduces operational costs as well as carbon emissions.


Smart Mast

Smart Poles are autonomous systems that do not need a grid connection and produce and store their energy thanks to the Solar Panel. The Solar Panel charges the Battery Pack during the day, and the LED luminaire illuminates all night. It has a USB cable and Type C Cable outputs. It provides wireless charging of your NFC-enabled devices and is used as an Internet Distribution Point. Image and sound recording are taken with the camera/s on it. When connected with mains energy, it can charge vehicles that require low power. It is managed by the Intelligent Lighting Management System.

Smart Manhole

High security and remotely monitored smart cover with lock. Real-time theft warning with cover and integrated designed frame. Monitoring/preventing damage to critical infrastructures. Intelligent flood and seismic sensors. Optional sensor connection possibility.
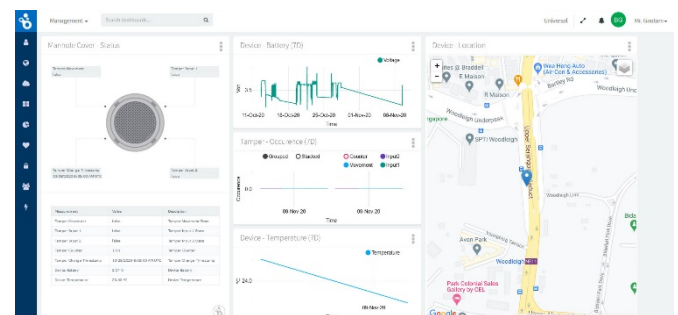
Fleet Tracking System

CoC is connected to a fleet management system to monitor e-buses and cars. The vehicle's speed, odometer reading, and other vehicle-related information are displayed. The location of vehicles is shown on the map with different icons for vehicles and e-buses. It is possible to see the history of the places visited by each vehicle as a heat map.
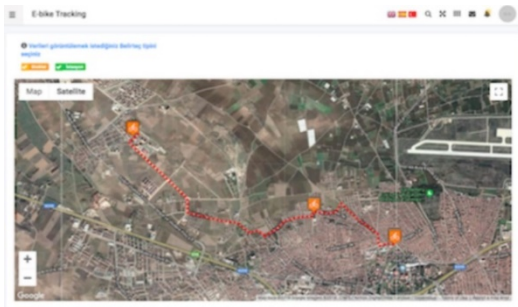
Integration with e-bike and e-mobile system

E-bikes and e-mobiles, rental stations, and parking spaces are processed in the system and on the map following the layout. Remote devices are being monitored.

Air Quality, Meteorology/Noise Level Measurement

Atmospheric pollutant concentrations are monitored to solve air pollution problems, monitor and strategize. Generally, air quality is measured for 5 main pollutants. Particulate matter (PM10), carbon monoxide (CO2), sulfur dioxide (SO), nitrogen dioxide (NO2) and ozone (O3). At the same measurement points, temperature, humidity and wind data and noise level are also measured.
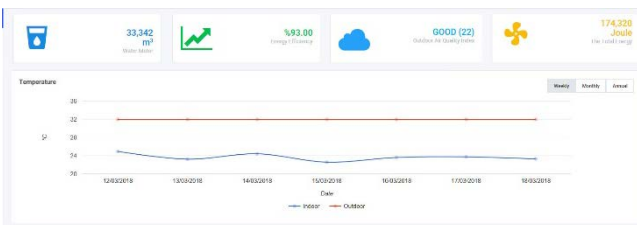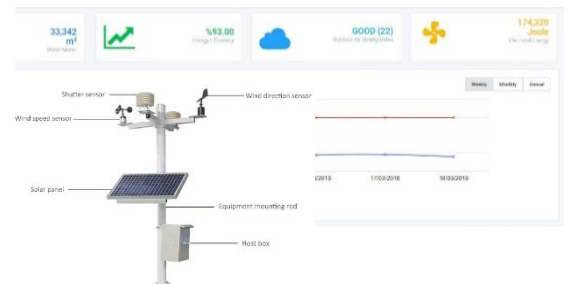
Measurement and Management of Energy and Water Resources

CoC provides hardware-independent LoRa, NB-IoT etc. protocols to monitor and manage the consumption of energy and water resources in the field via direct connection and/or existing Energy and Building management systems.

Water Leakage Loss Prevention and Management

The system ensures effective use of drinking-utility water and prevention of waste, and control of water losses in supply and distribution systems. It helps to determine the losses in drinking water distribution and transmission networks and to reduce these losses. It manages the prevention of water losses in transmission and distribution lines, improvement of water distribution lines and increasing their capacities.


Waste Tracking Management

It is a Waste Tracking Management system application that aims to save time and money by providing the opportunity to manage, track and plan your containers, vehicles and drivers.It transmits the occupancy rate and temperature information of the container with the sensor attached to the top of the containers. With this information, it provides the opportunity to track your containers live.

Smart Irrigation

It can give remote irrigation orders according to the humidity of the soil. To make regular irrigation by creating a weekly Automatic Irrigation Plan, conserving water by combining current weather information and forecasting, making the intelligent decision whether to irrigate. It is increasing product quality with correct irrigation and plant tracking. Operational efficiency is achieved by remotely managing agricultural fields, greenhouses, parks, or gardens in different regions.
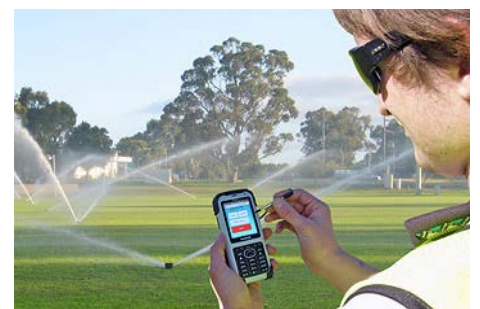
Building Management System and Building Security Management

With this module and integrated monitoring system aimed at ensuring the safety of citizens, security violations are prevented. Control of entrances and exits to buildings is provided. Damages caused by unauthorized entries and exits are prevented. Access Control, Fire & Alarm, Video Surveillance etc systems work integrated.
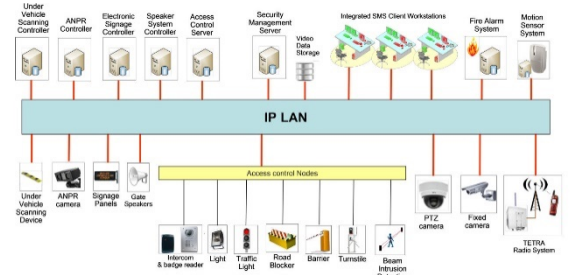
Perimeter Security: Systems Based on Image Processing

Gunshot detection, drone detection system. Preventing suspicious and criminal behaviors, detecting criminals, detecting organized terrorist attacks, detecting possible attacks or crimes with Video Analytics (Example: detecting unclaimed objects-bags, detecting the movement/loss of valuable/important objects from their defined places), prohibited area violations. Prevention of threats such as bombs, explosives, weapons (X-Ray, Body Scan, Area Scan …). sensor networks. Ensuring suspicious vehicle entry and exit controls.

Remote Patient and Elderly Follow-up Management

Behavior detection and abnormality are monitored by controlling sleep and active times, bath/toilet times, etc., with data from different sensors and monitoring/measurement devices. A warning is generated when measurements exceed the required limits. Meal and drug intake times and processes are controlled.
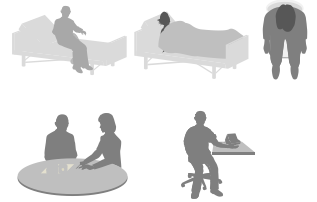
Cyber Security Management

Trying to prevent cyber-attacks on Smart City systems ensures that material damage is prevented and secure data exchange is ensured. It provides data security of IoT Devices. Ensuring packet security of Wireless Sensor Networks, preventing cyber security attacks and ensuring the security of data traffic. Monitoring and preventing cyber-attacks that may occur with the Cyber Operations Center.

REMOURBAN – H2020 SCC1 Destekli Proje

Akıllı Kentsel Dönüşümün Hızlandırılması için Yenileme Modeli (REgeneration Model for accelerating the smart URBAN transformation)

AGASY Licensing

With AGASY, we offer our customers the licensing packages they need with different options.

CoC Modülleri	Basic	Professional	Enterprise
Monitoring		✔ ✔	✔ ✔ ✔
Reports		✔ ✔	✔ ✔ ✔
Device Operations		✔	✔
Definitions		✔	✔
Authorization Profiles		✔	✔
User Operations		✔	✔
Notifications, E-Mail	-	✔	✔
Data Transfer (SQL, Excel)	-	✔	✔
Map	-	O	✔
Plan	-	O	✔
Energy Management	✔	✔	✔
Building Management System	-	✔	✔
Outdoor Lighting Management	✔	✔	✔
Indoor Lighting Management	-	✔	✔
Parking Management	-	✔	✔
Mobility Management	-	✔	✔
Bicyle / Scooter Management	-	✔	✔
Air Qulity	✔	✔	✔
Waste Management	-	✔	✔
Water Leakage/Loss Prevention and Management	-	✔	✔
Smart Irrigation	-	✔	✔
Perimeter Security	-	✔	✔
Cyber Security Management	-	-	✔
Active Directory	-	✔	✔
LOG Server	✔	✔	✔
Login	✔	✔	✔
Analytics	-	-	✔
CoC Installation /Integration	-	-	✔

O=Optional: Selected by the customer

S=Selective: The customer should choose according to the number of readers.

Other Supported Systems / Platforms List:

Disaster and Emergency Systems - Payment System - Smart Meter Management - Smart Irrigation and Rainwater - Recycling Vending Machine Management - Smart Station Management - Remote Health Services - Region and Building Based Air Conditioning Applications - Smart Grid and Energy Management - Building Management Systems - Biological and Chemical Threat Analysis …

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