wanwave

Manhole Cover Monitoring

wanwave's manhole cover monitoring system offers a robust solution for enhancing safety, infrastructure maintenance, and operational efficiency in urban environments. **wanwave** enables municipalities and utilities to monitor the status, condition, and security of manhole covers in real time, mitigating risks associated with open or damaged manholes and preventing accidents.

Key aspects of using **wanwave**'s manhole cover monitoring solution include:

1. **Real-Time Status Monitoring**: **wanwave** sensors installed on manhole covers continuously monitor their status, including open/closed position. Real-time data on manhole cover status is transmitted to a central monitoring system, enabling operators to quickly identify and respond to incidents such as open or displaced manhole covers.

2. **Safety and Risk Mitigation**: Manhole cover monitoring systems help mitigate safety risks associated with open or displaced manhole covers, which pose hazards to pedestrians, motorists, and utility workers. Immediate alerts triggered by wireless sensors enable rapid response to address safety issues, such as dispatching maintenance crews to secure or repair damaged manhole covers, reducing the risk of accidents and injuries.

3. **Integration with Smart City Infrastructure**: **wanwave**'s manhole cover monitoring system seamlessly integrates with existing smart city infrastructure, including IoT networks, cloud platforms, and centralized monitoring systems. Integration enables data sharing, analysis, and visualization, facilitating comprehensive situational awareness and decision-making for city officials, utility operators, and emergency responders.

Hardware Components Used in this Solution

MANHOLE COVER POSITION SENSOR
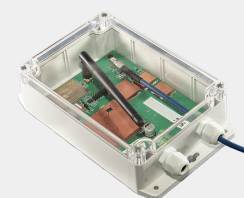
WNG-20 NETWORK GATEWAY

wanwave

Mode of Operation

wanwave's manhole cover sensors are deployed on all monitored manhole covers. The sensors are sealed, all-weather designed, have an extremely durable body, and are certified IP67. The sensor's algorithms are configured to ignore ambient vibrations (foot traffic, motorized vehicles, etc.) while the antenna is specially designed to work from under the manhole cover. The sensors are completely autonomous, with a built-in battery designed to support the transmission of 50,000 messages, which is equivalent to 5 years of operation when transmitting messages once an hour.

The transmitted information is received by the network gateways which automate the reception and transmission of messages between end devices and the **wanwave** server. They are deployable in both stationary and mobile settings.
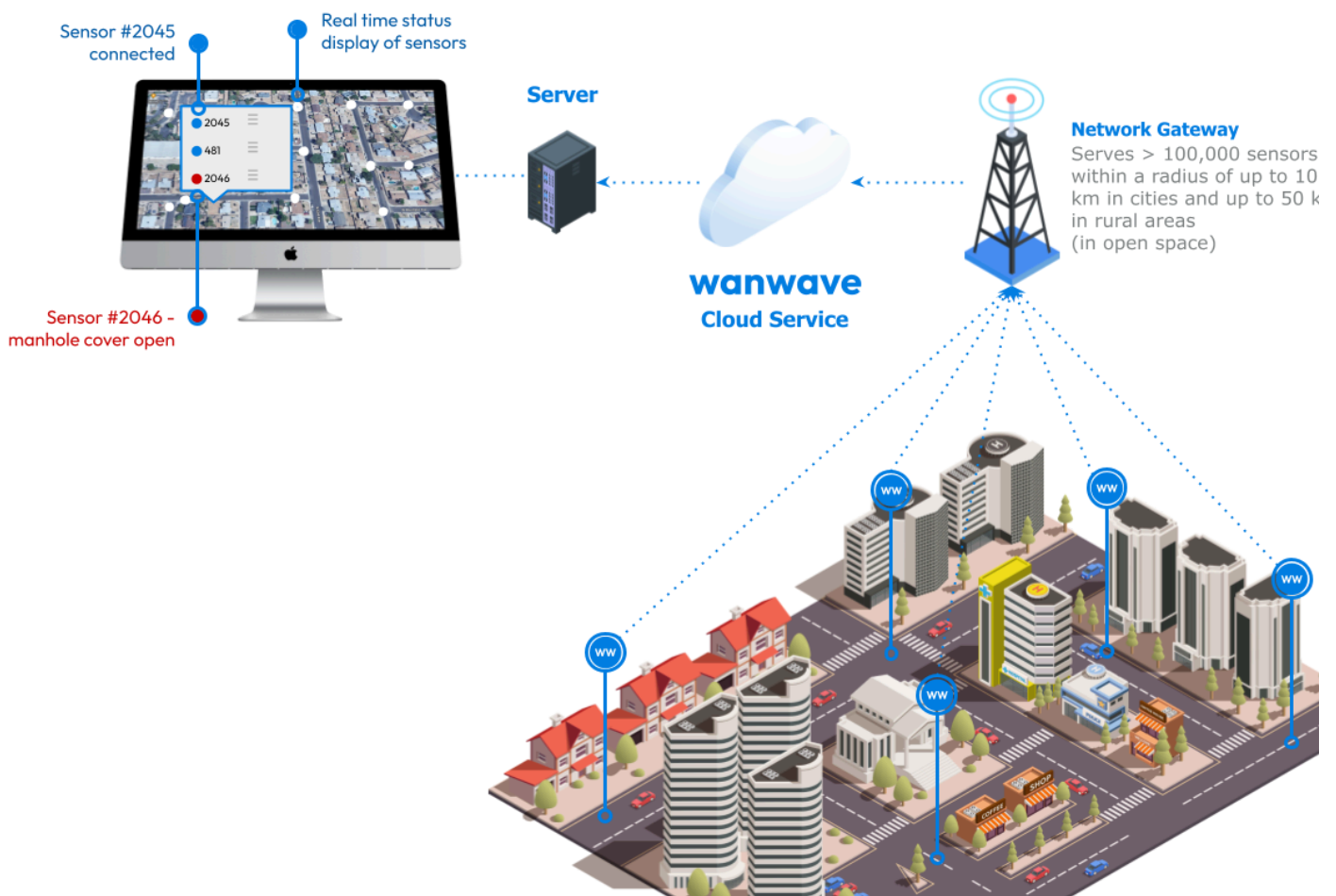
Learn more at wanwave.com