

Fibocom



5G Smart Light Pole — More than Just Lighting

A Fibocom toT Connectivity
Case Study

Smart Light Pole

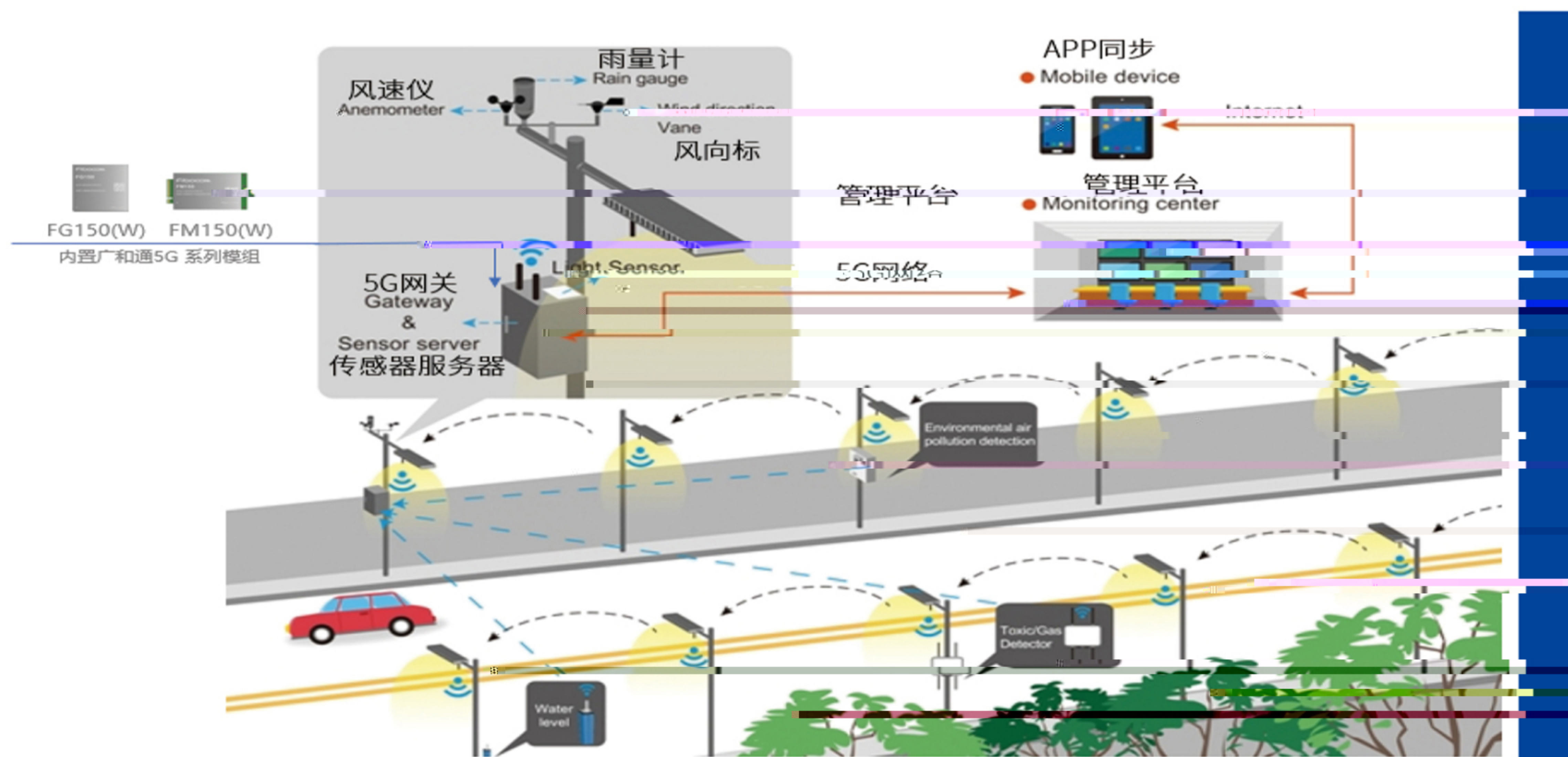
Industry Challenges



With the acceleration of urban construction, there are more and more facilities on both sides of the road, such as street lights, signs, public service facility, intelligent transportation equipment, etc. The phenomenon of "multiple poles" has become a major urban landscape disease, which not only has a negative impact on the urban landscape, but also causes conflicts in the layout of facilities and increase the difficulty of management coordination.

Driven by the construction of new smart cities and the commercialization of 5G, the 5G smart light pole, combining "5G micro base station, IoT, big data, and artificial intelligence" with traditional urban public infrastructure, is considered to be the most promising new public infrastructure.

Solution



Enabled by the large bandwidth, ultra-high reliability & low latency, and massive connection of 5G, smart light poles integrate functions such as 5G micro base stations, LED intelligent lighting, video surveillance, information displays, public information displays, environmental monitoring, Wi-Fi hotspots, one-key alarms and water monitoring. Smart light poles can also be interconnected with manhole cover monitoring, hydrological monitoring, parking space management, traffic signal and other systems widely applied in smart transportation, smart security and smart municipal administration.

Fibocom's 5G modules provide highly reliable wireless networking for smart light poles. With the help of Fibocom FI-5G01 and FI-5G02 module, the gateway devices are able to upload the data collected from each sensor to the back-end management platform in real time. The back-end management center can then visually manages the collected data to help municipal government improve management efficiency.

IoT Connectivity Case Studies

5G micro base station

Smart light poles integrate a 5G micro base station to provide massive site resources for 5G networks. In addition, with wide coverage and proximity to connected objects, smart light poles are suitable carriers of an IoT system. Through various connection methods, including fiber optic transmission network, 5G, NB-IoT, Wi-Fi, ZigBee, etc., they can connect and manage the ubiquitous smart terminals, receive, integrate and transmit information from various fields of the city at anytime and anywhere, improving the efficiency of urban management and the quality of the city.

Multi-media interactive LED screen

Multi-media interactive LED screen, with wide coverage and proximity to connected objects, has the effects of wide spread, high efficiency and large impact. When there is an emergency, such as a fire or earthquake, the information release system can issue emergency, evacuation and warning lights to notify people to re-evaluate safety. Combined with LED screens, government information, traffic information and other information can be released.

Security system

A camera system and other facilities are integrated into the security system, which are all interconnected for video, intercom and video cruise tracking.

Changing public system

Electrical, electric bicycles and other public charging facilities. The poles can be equipped with different charging, according to the actual demands.

Environmental sensing system

For the purpose of collecting information about the surrounding environment, one set for a park or town is enough. The collected information can be displayed on the LED display of smart light poles.

IP sound pillar

Sound pillars in the park can provide publicity video and provide security system, which is a combination of IP sound pillars. Some emergencies can be avoided by sound pillars, promptly informing people to take measures. They can play the role of publicity, warning, and monitoring.

Outdoor Wi-Fi hotspots

Communities are usually where people live and rest, and Wi-Fi can provide a high-speed internet experience.

Smart lighting system

According to the situation, turn on and off the lights on time as well as intelligently adjust the brightness of them.

