



## Successful Case Kaohsiung English Van Kaohsiung, Taiwan



高雄市政府教育局

EDUCATION BUREAU, KAOHSIUNG CITY GOVERNMENT

## Education Bureau of Kaohsiung City Government Bridges the Digital Divide in Education with Edgecore Networks

### OVERVIEW

To balance the English learning resources between urban and rural area, the Education Bureau of Kaohsiung City Government has invested in the creation of the "Kaohsiung English Van", which breaks geographical restrictions and provides mobile teaching services to make up for the lack of English education resources in rural areas. The Kaohsiung English Van is equipped with advanced information equipment. Teachers can utilize VR and live broadcast to create a smart and interactive learning environment, allowing rural students to practice English dialogue naturally, expanding the effectiveness of educational resources, and promoting bilingual and international education.



## THE CHALLENGES

To ensure that all the information equipment on the Kaohsiung English Van can operate smoothly in remote areas, and that students and teachers can have a stable internet connection for smart mobile teaching. After comprehensively evaluating several competing WLAN solutions, the Education Bureau of Kaohsiung City Government found that Edgecore Network's WLAN solution best fulfilled their needs.

## THE SOLUTION

Edgecore's solution includes two OAP100 to provide 4G Uplink and point-to-point bridging up to 3 km. OAP100 is an 11ac Wave2 outdoor wireless access point specially designed for enterprise and Public Wireless Local Area Network (PWLAN) application. The transmission rate can reach 1.2 Gbps, providing high-speed and stable wireless network access. With the built-in CAT4 LTE module slot, OAP100 provides a smooth and high-performance network connection through the 4G LTE network card. The built-in chip-type high-power wireless amplifier can enhance the signal stability and improve the latency, and significantly enhance throughput performance, making OAP100 the best choice for long-distance bridging required for mobile teaching. In addition, the IP68-rated, rust-resistant plastic housing of OAP100 ensures that it can provide stable network services to support mobile teaching regardless of the weather.



Figure 1: The OAP100 using 4G LTE module is installed on the car, and its mounting bracket can be adjusted according to the connection requirements.



Figure 2: OAP100 is installed on a tripod and placed in the campus to establish a point-to-point bridge with the OAP100 installed on the car.

The solution also includes an ECW5410-L as an in-vehicle wireless access point to provide local wireless access. ECW5410-L is a concurrent dual-band 802.11ac Wave 2 high-density access point. Featuring dual 4x4 MU-MIMO radios can support up to 256 concurrent users, and up to 600 Mbps and 1.73 Gbps data rates for both 2.4GHz and 5GHz bands, ensuring that teachers and students can enjoy smooth and reliable connection at the same time .

With ecCLOUD cloud controller, IT managers can centrally monitor the overall network environment, reduce the complexity and difficulty of deployment and management, and reduce labor and cost expenditures, greatly improving the overall effectiveness of the mobile teaching network.

School's IT infrastructure is extremely important for digital learning and teaching. Through the cooperation, Edgecore has successfully assisted the Education Bureau of Kaohsiung City Government to lay a solid foundation for a smart learning environment with the Kaohsiung English VAN. As to stimulate the learning momentum of the new generation. In addition to Taiwan, Edgecore also has extensive experience in building large-scale campus networks in the United States, India, Turkey and other countries, and continues to assist educational institutions to create the best learning environment through technological innovation.

## DEPLOYED PRODUCTS

- ecCLOUD Cloud Controller
- OAP100 11ac Wave 2 IP68 Outdoor Wireless Access Point
- ECW5410-L 11ac Wave 2 Indoor Wireless Access Point
- ECS2100-10P Gigabit Web-smart Pro PoE Switches