Case Study

People. Places. Connected.

San Mateo County : SMC Labs



Goal: Find solutions for several regional issues including the encouragement of EV adoption.

San Mateo County Labs is using Fybr's end-to-end, integrated IoT platform (powered by AWS) to pilot several use cases, including parking, irrigation management, air quality monitoring, and asset management.

Part of this deployment is focused on providing citizens with real-time parking availability for EV charging stations in order to address "recharge anxiety"—the reluctance of drivers to use their electric vehicles because of fear they may not be able to find an open charging station.

Challenges

Redwood City's Municipal parking garage counted parking spaces using the "in and out" method which did not identify specific types of parking spaces. This was a problem because—according to the International Council of Clean Transportation—49% of all electric vehicle owners in the U.S. reside in California and these EV drivers were avoiding entering garages due to the uncertainty of finding an open charging station.

Solutions

Fybr was the turn-key provider for this program for San Mateo County. Fybr designed, manufactured, installed, and maintains all of the sensor and sensor-supporting hardware used on the project.

Fybr partnered with San Mateo County Labs on this pilot. The mission of SMC Labs is to bring cities, agencies, residents, universities, and businesses together with solutions providers, domain experts, and resources to co-create innovative solutions for complex regional issues. Because parking is an issue relevant to the entire county and region, the focus of this pilot was to identify turnover, real-time availability, and level of space utilization of electric vehicle charging and disabled parking spaces within Redwood City's Municipal parking garage.

By coupling data from Fybr's parking occupancy sensors with its Parking Genius app, drivers receive real-time information on available EV charging spaces and turn-by-turn navigation directly to those spaces.

Outcomes

- Parking space management can now be handled remotely, securely, and efficiently.
- With more electric vehicles being utilized, carbon emissions are being reduced in the region—leading to better air quality for citizens.
- The system can generate high ROI when implementing dynamic pricing based on real-time parking data.
- SMC officials receive data on important parking space statistics including occupancy rates, turnover, and real-time availability—allowing them to plan and allot for EV parking space expansion in the future.