



Geo-Line Paves the Road for Electric Vehicle Charging

A Sierra Wireless Energy Solution

CUSTOMER CRITICAL CHALLENGE

- Provide a solution for charging electric vehicles for those that don't have charging infrastructure
- Work with vendor that can provide technical support during development
- Develop a product that can be easily modified for global markets
- Introduce product quickly to meet demand

SOLUTION

- Plug and Pay Mobile Charger with AirPrime® HL Series

BENEFITS

- Simple solution to the "electric vehicle charging" obstacle
- No maintenance fees for infrastructure
- Low-priced subscription will appeal to the masses wanting to buy electric vehicles
- Removes key obstacle for higher electric vehicle adoption



BACKGROUND

Geo-Line was founded in 2014 with a mission to enable consumers to charge their electric vehicles anywhere. Geo-Line invented "Plug & Pay" – an electric vehicle mobile charging service. It is convenient and inexpensive to charge an electric vehicle in a condominium or a building underground parking lot with a regular outlet, but it is difficult to process the charge. Geo-Line has created a solution that solves the dilemma of electric car charging.



"We considered other modules but chose Sierra Wireless because of their global team, support and the CF3® form factor, which will make it easy for us to adapt the product for various markets."

Sunggyoo Geo
CEO
Geo-Line

Business Challenge

In 2017, electric vehicle sales surpassed one million units¹. While this is a significant milestone, it represents only 1.3% of global vehicle sales. According to a recent report by PwC², there are two major impediments to sales growth of electric vehicles - perceived high upfront costs and the availability of charging stations.

With the growing demand for electric vehicles, local governments have responded by adding electric vehicle charging stations in many metropolitan areas. Since these charging stations are typically in densely populated urban areas, more people are competing for these relatively scarce resources. For those that live in apartment buildings and condominiums, without charging infrastructure, an electric vehicle is not an option. Consumers living in high rises aren't typically allowed to use electrical outlets in "public" parking garages for obvious reasons – there is no way to charge them back for the electricity used.

Geo-Line plans to change that by offering a "Plug and Pay" service to consumers which includes a small mobile charger. This mobile charger can be plugged into any electrical outlet, and Geo-Line takes care of paying utility providers for electricity usage and charging the usage back to the subscriber.

In order for the whole solution to work, Geo-Line needed to ensure communications from their hardware to their back-end systems, and they needed a solution that would work globally on all carrier networks.

Sierra Wireless AirPrime® Solution

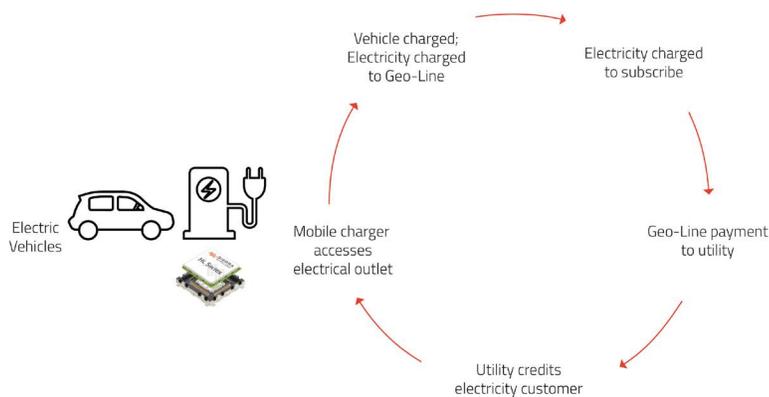
Geo-Line selected the HL Series embedded module from Sierra Wireless for its global coverage. With a single module, Geo-Line will be able to manufacture their solution for the global market.

"We considered other modules but chose Sierra Wireless because of its global team, support and the CF3® form factor, which will make it easy for us to adapt the product for other markets. This is our first implementation with Sierra Wireless, and working closely with the Sierra Wireless field application engineers, we were able to select and implement the solution into our product in just a few months", said Sunggyoo Geo, CEO of Geo-Line.



"Geo-Line is poised to bring the type of revolution we saw in mobile phones to the electric vehicle charging market, and we look forward to taking our product to consumers globally in the next few years."

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Results

Customer demonstrations were conducted in Asia in the summer of 2018 and will be complete in Europe in the fall of 2018. Geo-Line will then introduce the technology to other markets. The company has developed a very simple solution to the "electric vehicle charging" obstacle, with no maintenance fees for infrastructure. The low price of the subscription makes this a solution that will appeal to the masses wanting to buy electric vehicles. Consumers can now make a more economical and environmentally-friendly vehicle choice and have the freedom to charge their electric vehicle anywhere.

"Geo-Line is poised to bring the type of revolution we saw in mobile phones to the electric vehicle charging market," said Mr. Geo, "and we look forward to taking our product to consumers globally in the next few years."

¹The Global Electric-Vehicle Market is Amped Up and on the Rise' Available at: <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/the-global-electric-vehicle-market-is-amped-up-and-on-the-rise>. Accessed November 2018.

²'Powering Ahead! Making Sense of Business Models in Electric Vehicle Charging' Available at: <https://www.pwc.co.uk/industries/power-utilities/insights/electric-vehicle-infrastructure-report.html>. Accessed November 2018.



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About Sierra Wireless

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