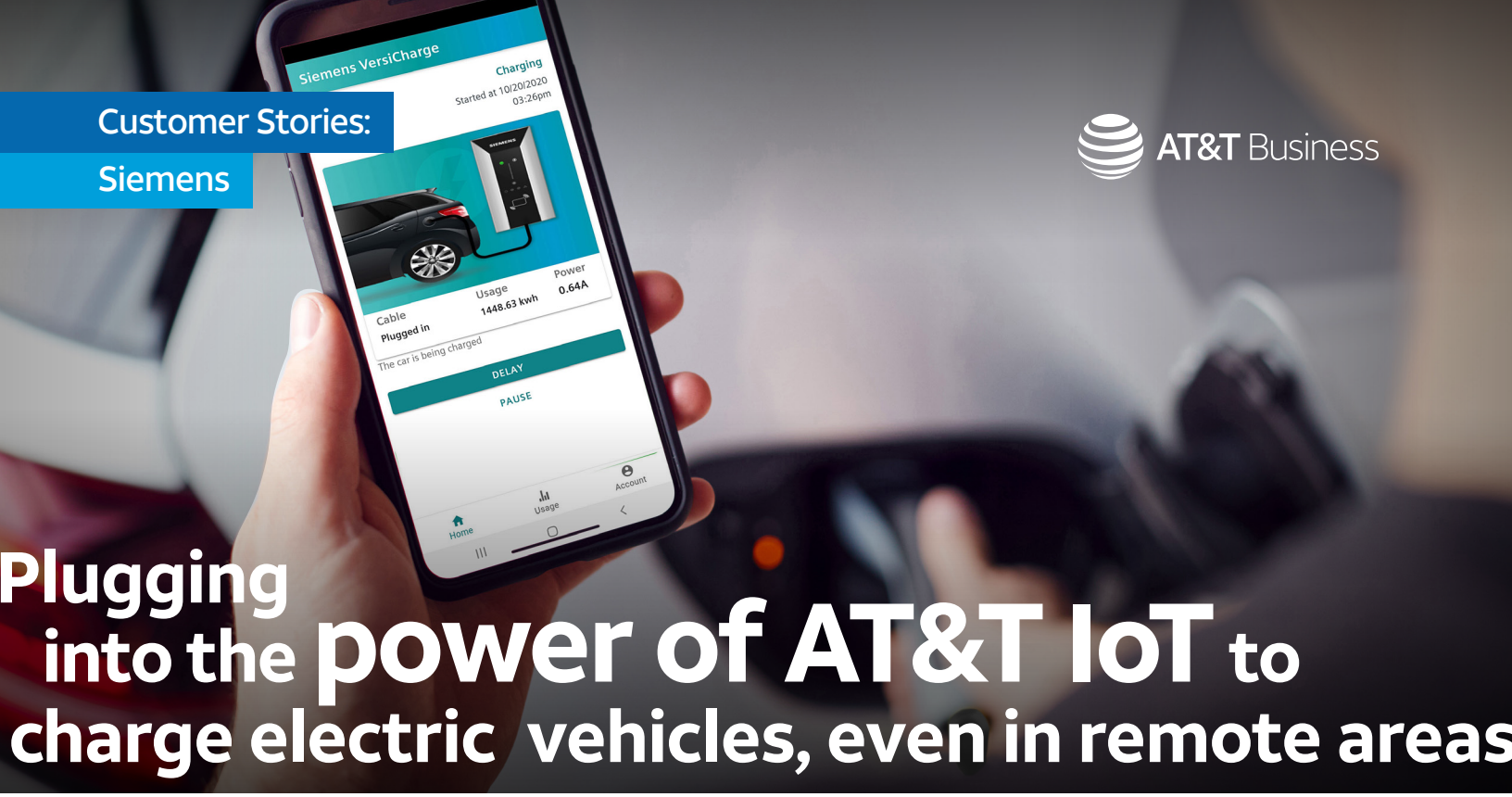
Customer Stories:
Siemens

AT&T Business



Plugging into the power of AT&T IoT to charge electric vehicles, even in remote areas

- **Business needs** – A way to connect with tens of thousands of electric vehicle (EV) charging stations to update software, process customers' financial transactions, and troubleshoot problems.
- **Networking solution** – AT&T Global SIM delivers highly reliable IoT connectivity to EV chargers, even in remote locations.
- **Business value** – Dependable connectivity, customer satisfaction
- **Industry focus** – eMobility
- **Size** – Over 75,00 EV charging stations deployed in the U.S.

About Siemens

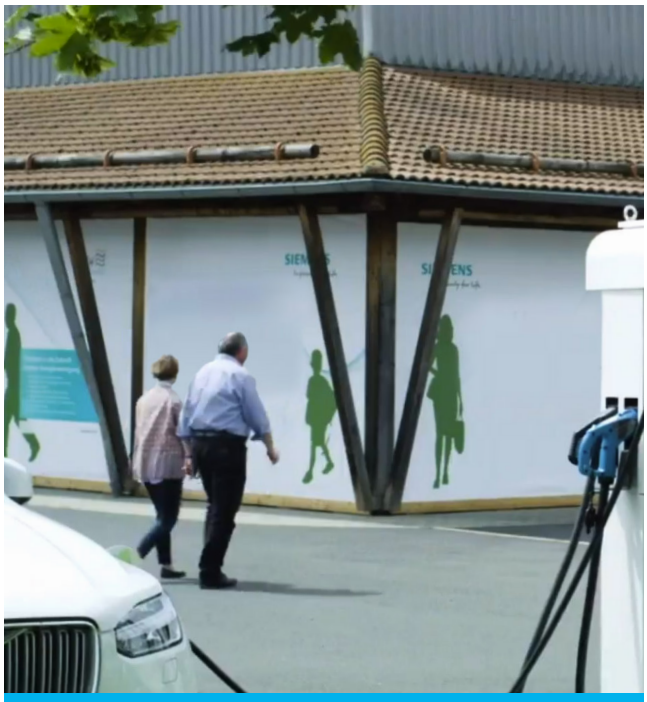
Siemens Corporation is a U.S. subsidiary of Siemens AG, a global technology powerhouse. It has stood for engineering excellence, innovation, quality, reliability, and internationality for more than 170 years. Headquartered in Munich, Germany, the company is active around the globe. They focus on areas of intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Sustainability is an important part of all Siemens's interactions.

The situation

Siemens's eMobility solutions recently launched the next generation of VersiCharge AC series electric vehicle charging stations for commercial and residential use. The company needed a dependable way to update the chargers' software, process financial transactions, and monitor the equipment. It required highly reliable connectivity from an IoT leader to enhance the dependability and utility of its EV charging stations.

Solution

Siemens integrated dependable AT&T cellular connectivity into its charging stations. It also contracted with AT&T Business to provide enhanced support services. The solution supports the equipment so it's ready to use when consumers need to charge their vehicles.



"How do we equip ourselves to put a charging station in front of a mom-and-pop coffee shop and at the same time serve customers like city transportation systems that are trying to convert their transit systems to electric?"

Sean Ackley
Head of Managed Services
eMobility Solutions and Future Grid, Siemens

A leader in smart mobility

Siemens AG brings together the digital and physical worlds to benefit customers and society. The company focuses on intelligent infrastructure for buildings and decentralized energy systems, automation and digitalization in the process and manufacturing industries and smart mobility solutions for rail and road transport. This includes electro mobility (eMobility) solutions. The category of eMobility includes electric, hybrid, plug-in hybrid, hydrogen-fueled vehicles, and the infrastructure for them.

When the average consumer hears the term "electric vehicle," they typically think of cars. However, in addition to cars, electric vehicles now include transit buses and trucks of all sizes. And Siemens is helping customers plan and implement highly secure EV charging infrastructure for light-to-heavy-duty vehicles. The division is shaping the energy systems of today and tomorrow as well as the world market for passenger and freight services.

Additionally, the company has a deep commitment to sustainability. It has pledged to reduce its carbon emissions while helping its clients accelerate their individual carbon-neutral journeys. Siemens's electric vehicle charging infrastructure lays the foundation for a more economic, environmental, and effective ecosystem.

Diversity and flexibility

Sean Ackley, Head of Managed Services, eMobility Solutions and Future Grid at Siemens, said the company's EV chargers accommodate a wide range of vehicles. "The infrastructure can run the gamut," he said.

"From residential or commercial small AC power vehicles to very high-power charging stations that would charge something as large as an inner-city transit bus or a large highway freight vehicle. Our focus in eMobility is the make-ready equipment that connects all of that infrastructure to the grid."

The diversity of Siemens's clients presented a challenge. "How do we equip ourselves to put a charging station in front of a mom-and-pop coffee shop and at the same time serve customers like city transportation systems that are trying to convert their transit systems to electric?" Ackley said. "We need to stay flexible. We need to talk to the smaller shops and help them understand this emerging technology just as easily as we need to engage with large utility providers."

Reliable connections to the cloud

Sending data on consumer power consumption to the cloud has become an essential element of EV charger operations for all Siemens's clients. "They need to know how many kilowatt hours are being consumed by customers charging their vehicles on the infrastructure they bought from Siemens," Ackley said.

Siemens's eMobility solutions team is responsible for providing those cloud services to clients, which requires dependable connectivity. The location of many of its EV chargers, however, created a challenge. "A lot of our devices and infrastructure are not near a home where you can connect to your local Wi-Fi," Ackley noted.

The company has already installed more than 75,000

charging stations in the U.S. and more than 200,000 globally. Most are in parking lots, so digging up the concrete to install fiber optic or Ethernet cables would be cost-prohibitive. "We provide the infrastructure to charge these vehicles," Ackley said. "We need to make sure that we're delivering the avenue by which customers can interface with those devices in the cloud. That's really our mission statement."

Siemens needed a way to deliver connectivity to the existing EV charging stations and thousands more planned for North America.

A turnkey operation

Siemens chose AT&T Business to integrate highly secure, robust IoT connectivity into its charging stations. The solution enables Siemens to make software configuration changes remotely and receive regular reports of each station's performance metrics.

AT&T Global SIM enables the proactive dispatch of station repair technicians. It also processes consumers' financial transactions and monitors the efficiency of each charging station. The solution delivers connectivity and flexibility without the need for large capital expenditures.

"The mom-and-pop shop is really not concerned whether you use local Wi-Fi or a SIM card," Ackley said. "They want connectivity at a fair rate. They tell us, 'Give me simple options and make it turnkey for me.' Siemens just bundles it all together."

Its larger clients demand network security and easy access to their data. "Regular uptime guarantees that this network that they're syncing up under contract with Siemens is going to be reliable," Ackley said.

"We've been able to give smaller customers a package that keeps their operational expenditures flat, and with the AT&T network we can provide engagement on higher-end products as well."

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Siemens's relationship with AT&T Business enables the company to satisfy customers of all sizes. "We've been able to give smaller customers a package that keeps their operational expenditures flat, and with the AT&T network we can provide engagement on higher-end products as well."

Providing proactive customer service

Ackley considers the connectivity guidance AT&T Business gave him spot-on. "The connected devices can tell my team when a repair is needed," he said. "Or when they've detected something potentially unwell on a vehicle, and we can inform our clients directly."

Even as Siemens notifies a client of an issue, the company can simultaneously engage factory logistics to deliver replacement parts and engage Siemens's field service organizations to make any necessary repairs to the device.

"We're going to reach out to let them know we're coming before they even know there's something

wrong with the charger," Ackley said. "This proactive customer service really does help make our teams more efficient—and our customers happier."

A long history of collaboration

A worldwide power like Siemens chose AT&T because of a longstanding relationship with the world's largest telecommunications company and because of the AT&T Internet of Things (IoT) expertise. "We have a long history of collaboration with AT&T," Ackley said. "We've worked with them for other IoT-connected devices for other parts of the Siemens business," he said.

In addition, Siemens provides every employee with a company cellphone supplied by AT&T. "It's a long relationship, and we know it's a solid provider that we already have frameworks and agreements with," Ackley added. "It was important to us to go with someone we believe in and have a strong history with."

He is pleased with the support Siemens receives from its AT&T Business account team. "It's undeniably on the spot, seven days a week, 24 hours a day," Ackley said. Launching its new line of EV charging stations has required regular meetings with the account team for the past several months.

"This has been in the works for a very long time and the AT&T team really has been great in connecting with internal Siemens support members," Ackley said.

AT&T Business suggested new ways to manage services when existing customer portals didn't fit Siemens's new model. This additional value from AT&T will support clients' processes while letting Siemens

focus on getting the job done and building this evolved eMobility world.

"They came to the table with some options for us to evaluate," Ackley said. "That was great. I really appreciate their support."

A greener future

Ackley also likes the flexibility that AT&T delivers. "With a new technology like electric vehicle chargers, Siemens is having to reinvent old technology and old ways of doing things for a very new customer base in a very new market, with very new technology," he said. "And we look to AT&T to remain equally flexible."

This agility makes it easier for Siemens to adapt and quickly respond to its customers' needs. "As a very large company, it's just not in our bones to move quickly," Ackley said. "But we need to treat the relationship with AT&T like we're two small companies working together. We're going to have to react quickly to new consumer needs and demands."