



CUSTOMER CASE

ChargeNode Optimizes EV Charging with Telenor IoT

ChargeNode, a leading player in the public and semi-public EV charging industry, is using Telenor IoT's managed connectivity to offer more intelligent and complex charging stations. Explore how ChargeNode is improving efficiency and customer satisfaction at its connected charging stations.

telenor IoT



Introduction

As the electric vehicle (EV) market continues to expand, the demand for efficient, reliable and intelligent charging solutions has never been greater. ChargeNode, a prominent player in the EV charging industry, recognized the need for innovative and customer-centric charging solutions. By harnessing Telenor IoT's connectivity, they are improving EV charging stations across the Nordics.





Background

With a strong presence in Sweden and Norway, and a growing footprint in Europe, ChargeNode has set its sights on redefining the EV charging experience. Their distinctive approach to charging incorporates a queue system based on departure time, available power and pricing.

ChargeNode's target market is semi-public and includes commercial and workplace locations, municipalities, multi-family housing communities, fleet operators, public charging networks, and retail and hospitality businesses.

One thing that makes ChargeNode unique is that they can load balance the charging between several parked vehicles.

ChargeNode's load balancing technology provides a smarter and more cost-effective approach to managing EV charging

infrastructure, benefiting both operators and users while supporting more sustainable mobility.



Challenge

A formidable challenge they faced was efficiently managing multiple charging stations across various geographical locations while ensuring a seamless experience for EV owners. They also required real-time connectivity for monitoring and controlling of their charging stations, processing payments, gathering statistics, and providing customer support. In addition, there were four other main challenges to overcome.

High Demand Management: Meeting surging demand for EV charging during peak times is challenging. Effective resource allocation was vital, even when multiple users required charging simultaneously.

User-Centric Experience: Prioritizing a seamless and user-friendly experience was important for ChargeNode. This entailed finding ways to minimize waiting times for EV owners while optimizing station utilization.

Maintenance and Support: Identifying and addressing station malfunctions quickly is critical. Support staff needed access to a real-time monitoring system that could offer instant notifications.

Data-Driven Insights: ChargeNode felt that gaining valuable insights into charging patterns and usage statistics is valuable. They required a better way to collect and analyze data to enable service improvement and facilitate future expansion.

Solution

To address all these challenges and strengthen their EV charging infrastructure, ChargeNode selected Telenor IoT as their managed connectivity partner. Here's how Telenor IoT's connectivity is being used by them to improve operation of its charging stations:

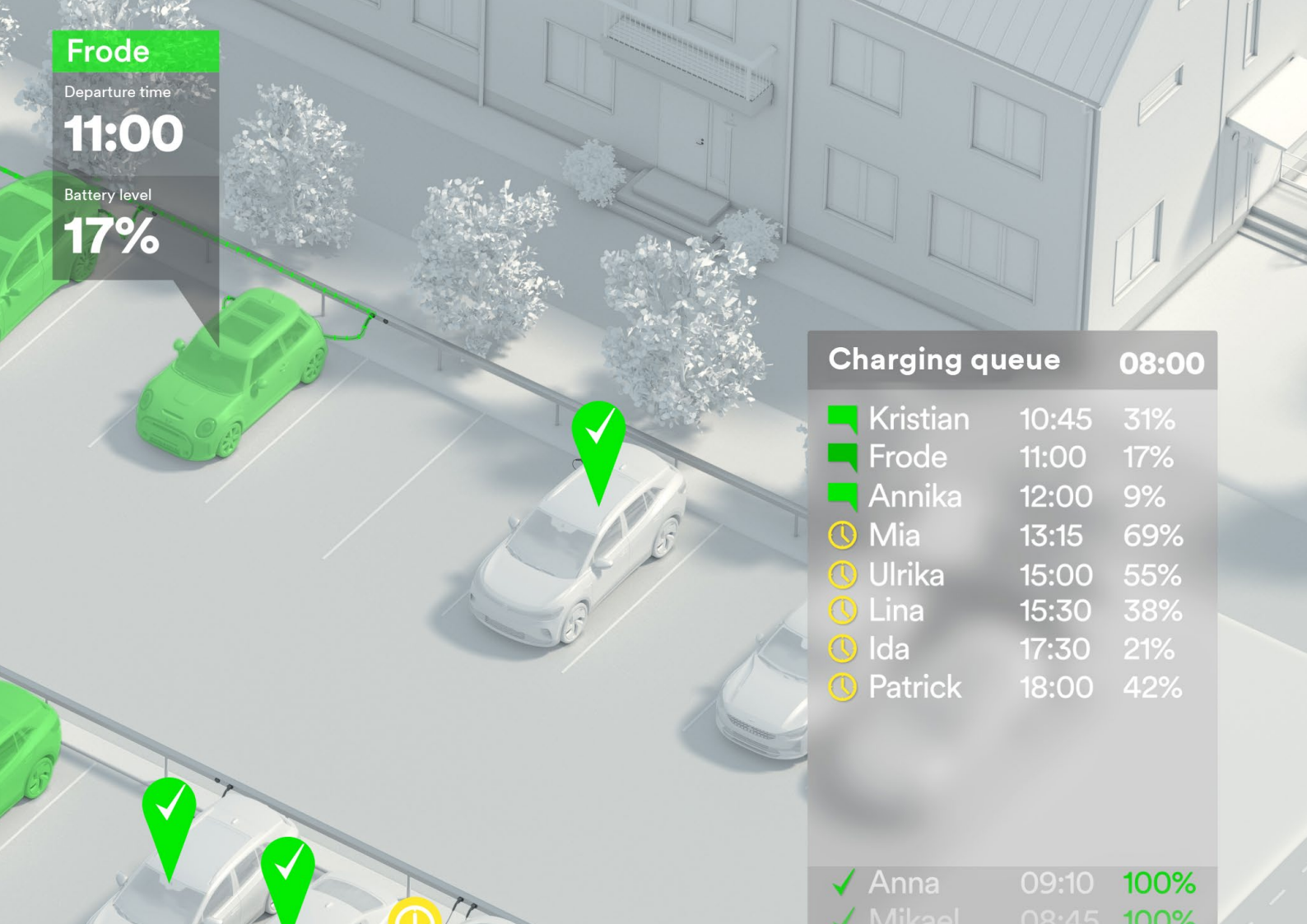
Real-time Connectivity: Robust, real-time connectivity ensures each station is securely connected to the ChargeNode cloud. This enables them to remotely monitor and manage stations seamlessly.

Queue Management System: Leveraging managed connectivity, ChargeNode implemented a smart queue management system. Now, they can prioritize charging based on power availability, pricing, and departure times. This innovation reduces waiting times, optimizing resource allocation during peak demand for drivers.

Notifications and Support: Predictive maintenance and instant malfunction notifications can be sent to support staff, enabling quicker, more efficient resolution. This proactive approach bolsters station reliability while fostering brand loyalty and trust to customers.

Enhanced User Experience: Real-time connectivity and queue management significantly elevate the EV charging experience, offering reduced wait times and convenience for EV owners.

Data Analytics: Telenor IoT supplies ChargeNode with advanced data collection and analysis capabilities. This functionality generates insights into charging patterns, usage statistics, and station performance, which they can then use to inform strategic decisions, such as service enhancement and expansion.



Frode

Departure time

11:00

Battery level

17%

Charging queue 08:00

■	Kristian	10:45	31%
■	Frode	11:00	17%
■	Annika	12:00	9%
🕒	Mia	13:15	69%
🕒	Ulrika	15:00	55%
🕒	Lina	15:30	38%
🕒	Ida	17:30	21%
🕒	Patrick	18:00	42%

✓	Anna	09:10	100%
✓	Mikael	08:15	100%

Results

Thanks to ChargeNode’s application of managed connectivity, they’ve been able to overcome many challenges effectively while offering new innovative services. They now operate a network of intelligent and user-centric EV charging stations,

that aspires to deliver a more seamless experience while enhancing operational efficiency. The successful partnership with Telenor IoT is facilitating transformation in the EV charging landscape, setting the stage for future expansion and innovation.

So far, the collaboration has some notable outcomes, including:

Efficient Queue System:

Its queue management system optimizes charging, prioritizing vehicles based on power availability and user needs.

Enhanced Customer Experience:

EV owners now enjoy a more hassle-free charging experience, thanks to real-time monitoring and responsive support.

Instant Notifications:

Support staff receives immediate malfunction notifications, enabling continuous service reliability.





"Telenor IoT connectivity is the backbone of our charging stations, ensuring their smooth operation day in and day out. Its rock-solid reliability keeps both clients and support staff satisfied. Robust connectivity not only guarantees a more stress-free experience for our users but also empowers our team, vital for the continuous reliability and development of our charging infrastructure."

- Kristian Sandahl founder of ChargeNode



With Telenor IoT's support, ChargeNode is poised to further expand its footprint, continuing its journey to provide more efficient and customer-centric EV charging solutions. This partnership highlights the potential of seamless connectivity to help reshape the EV charging industry, setting new benchmarks for efficiency and user satisfaction.



TELENOR CONNEXION

Telenor IoT is the portfolio of IoT solutions from Telenor Group, one of the world's major mobile operators. With more than 20 years' experience of providing global IoT connectivity, cloud services and expert support to companies of all sizes, Telenor is one of the world's most advanced IoT solution providers. Telenor IoT manages international IoT deployments for global customers in some 200 countries and today operates more than 20 million connected devices to enterprises such as Volvo, Scania, Hitachi, Verisure Securitas Direct and Husqvarna. The IoT solutions are offered to national customers in the Nordics through the local Telenor operations in each country, and on a global level through Telenor Connexion, Telenor's specialized unit that provides IoT solutions for large, international enterprises who need a customized offer with advanced support.

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