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# Enabling sustainable mobility with a smart charging infrastructure

Atos and Siemens prepare energy distributors for the future of electric mobility with a smart approach to e-vehicle charging



**SIEMENS | Atos**



### At a glance

Italian multi-utilities provider advances its decarbonization agenda and drives a **39%+ jump in new e-mobility customers** in a few months with an innovative new vehicle-charging app that works anywhere.

### The Atos and Siemens alliance

Atos and Siemens co-develop integrated cost-effective solutions which help mobility players solve their challenges across the entire value chain. We provide a 360° view by leveraging a data platform within an ecosystem that is still growing and evolving.

Our consulting services experts provide a reliable understanding of the market and protocols, and our proven methodology can effectively support your go-to-market strategy. Thanks to deep knowledge in the market, actionable insights and an extensive global presence, Atos and Siemens can meet customers' needs while shaping the future of mobility.

## Future shock

As a leading player in the competitive Italian utilities sector, the company was looking to tap into the growing market for electronic mobility (or e-mobility). It saw e-mobility as a major trend and a powerful way to differentiate itself and sharpen its decarbonization credentials. One major hurdle to electric vehicle adoption is insufficient charging infrastructure, so the company set out to tackle this challenge with an end-to-end solution compatible with any charging station.

This requires an investment in a platform capable of seamlessly offering a front-end customer app, interfacing with charging station hardware, managing customer onboarding, recharging purchases and billing. The solution had to be flexible and interoperable enough to work with a variety of devices and channels, yet powerful enough to manage the entire lifecycle of the charging process. It also needs to be forward-compatible to adapt to future technology and infrastructure developments.

## Getting amped up

To deliver the solution, Atos and Siemens put together a multi-disciplinary team based in Milan, Italy, with the skills required to execute the project. The team members were skilled in areas such as infrastructure and database services, microservices development, front-end app and portal development, and application integration. User experience design was tailored with the client to provide a meaningful and relevant experience for its users.

The e-mobility charging platform was developed on AWS cloud, which guarantees secure, reliable, scalable services with precise control over costs. The core functionalities were created using microservices – independent components responsible for managing a discrete aspect of the system's operation. Together, these microservices interact to function as a larger application, and the company can independently modify any microservice without affecting the others or taking the application offline. The rest of the solution was developed with open source components that make it possible to easily scale only the components required, improving performance and continuity without additional infrastructure investments.

## Catching lightning in a bottle

One major challenge to overcome was the fact that although each charging point provider manages the same data set, each system generates events (such as timeout notifications, end-of-charge messages, unplug notifications, etc.) differently. To deal with these potential sources of incompatibility, Atos analyzed how charging station providers handle events, then created an application layer to translate or manage the various events in order to plug seamlessly into the solution's workflow.

Atos and Siemens developed and integrated the system software using the agile methodology, which allowed iterative, incremental development with direct involvement by client and project stakeholders. The project was executed in several phases, the first of which was to analyze the strengths and weaknesses of several possible approaches to determine the optimal process. After that, Atos analyzed and developed functionality for the back-office, the charging point operator (CPO), and finally the consumer-facing app and portal. The step-by-step development was carried out by analyzing, developing and verifying each phase of the implementation. The key features include:

- A modern front end, iOS and Android apps
- Configurable eCommerce features like paperless and mobile shopping experiences, one-time purchases without registration, top-ups and subscriptions
- Management of onboarding and self-charging
- Independence and interoperability with any charging station manufacturer or charging point operator (CPO)
- Back-office tools for customer and infrastructure management
- A scalable architecture delivered in AWS cloud

The e-mobility charging system has provided the energy provider with an efficient, integrated application that enables it to offer a unique set of features to its customers.

## Changing the balance of power

Once launched, the app began to show immediate results. Within three weeks, the energy provider saw a 39% increase in new customers. In addition, flat-rate contracts jumped by 33% while pay-per-use contracts were up by 44%. As the world of e-mobility continues to expand and evolve, the company is now positioned to capitalize on the shift to electric vehicles, with a scalable foundation that is flexible enough to adapt to changes in the marketplace. In addition, by becoming the first to market with an innovative, best-in-class app, the energy provider now has an enviable first-mover advantage that its competitors are struggling to follow.

The client plans to use the solution as the basis for developing and rolling out future smart city, vehicle-to-grid (V2G) and vehicle-to-home (V2H) projects. Atos is signed on as the utility's technology partner for the next several years, ready to deliver more sustainable innovations to power our world.

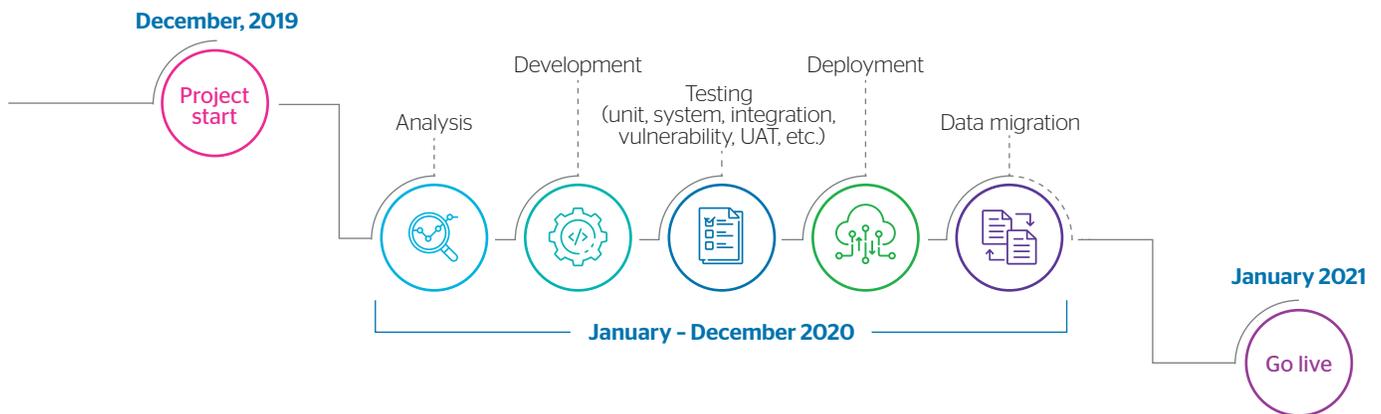
To learn more about Atos energy retail services, visit <https://atos.net/en/portfolio/better-engage-with-customers-and-prosumers>



### Why Atos

Atos is a pioneer in decarbonized digital, helping accelerate the drive for net-zero emissions globally. We are committed to enabling the green vehicle ecosystem, creating end-to-end service, loyalty and added value for all stakeholders. Our solutions help advance progress towards V2G and V2H for future battery storage management, and our partnerships enable clients to get the support they need to accelerate innovation, increase efficiency, and create new growth opportunities.

## Project timeline



# About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of over € 11 billion. European number one in cybersecurity, cloud and high performance computing, the Group provides tailored end-to-end solutions for all industries in 71 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos operates under the brands Atos and AtosSyntel. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The [purpose of Atos](#) is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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Let's start a discussion together

