

valantic



CASE STUDY

Energizing Efficiency





About

About EDP

EDP is the third largest electricity production company and one of the largest gas distributors on the Iberian Peninsula.



EDP optimizes field technicians work with mobile app deployed in 5 weeks by valantic

EDP was challenged to digitally transform their operations center and one of its core process for securing work by maintenance teams. The old way of calling the operations center for both entry and exit authorization had led to major call center congestion and a significant delay in the maintenance team's ability to get work done. The solution implemented by valantic enabled the automatic authentication of the maintenance teams through an app on their mobile phone, eliminating the calls for authorization and manual data registration. This has freed operators to focus on their core activities and provides centralized control of work in progress - while ensuring both people and assets are secure. Check-in/checkout time went from an average of 30 minutes in critical periods to 5 seconds.

Industry

Energy - EDP is the third largest electricity production company and one of the largest gas distributors on the Iberian Peninsula



Challenge

EDP's Dispatch and Conduction Department (DCD) is responsible for managing the Portuguese electricity grid, assuring excellent service, energy quality, and continuity for the country. To efficiently control maintenance in substation facilities and guarantee the grid's security, the registration of staff entrances and exits is critical. The problem is that this was a manual and error-prone process.

Whenever maintenance was necessary, the communication and authorization to start working were requested by phone as the technician was arriving at the asset. In a typical week, DCD operators received about 500 calls (more than 40% related to facilities access), and the information was manually entered into an Access database to track who was accessing which facilities.

All this resulted in inefficiency for multiple business areas, including:

- **Operators:** Due to high call volumes with entry and exit requests, they were unable to focus on their core activity of network supervision
- **Technicians:** Wasted time waiting for access and exit calls to be answered and authorized
- **Managers:** No real-time access to information and difficulty in searching and monitoring work in progress.

Goals

- Real-time control of DCD maintenance operations, ensuring security of people and assets
- Accelerate maintenance operations and eliminate errors associated with manual data entry
- Self-service authentication by field technicians (when arriving and exiting installations without having to overload the operations center with calls)
- Enable field technicians and operations staff to be more efficient



Solution

To address these challenges, the solution was to develop a mobile app that could give autonomy to the field technicians (eliminating the need for calls), free operators to focus on their strategic tasks, and provide managers a reliable and real-time set of information for analysis and control.

The tech platform chosen was OutSystems due to its ease of use, fast implementation, existing internal knowledge, and good previous experience by the EDP team.

„We then selected 3 partners with the maximum level of partnership with OutSystems and valantic won the tender based on their demonstrated skills, proof of concept’s quality and fit, and economic rationale,“

highlights Diogo Lopes.

Solution

EDP Checkin mobile app (including a web monitoring module) developed by valantic based on the OutSystems platform



Diogo Lopes

Low Voltage Grid Manager, EDP



We had a huge number of calls to our operations center with requests to enter and exit our technical installations. Handling these calls is required for security as we must record who and when individuals are inside our facilities. Since the phone channel was overloaded, we needed to find a viable alternative.



Solution

The solution, called EDP Checkin, was developed by valantic in just 5 weeks in a close partnership with EDP and consists of two modules that enabled automation of the end-to-end security and access control process:

Mobile application

Used by EDP's maintenance technicians on their mobile phone to check in when they enter and check out when they leave installations to which they have authorized access. The app also provides the technician with information about the work to be performed. By using geolocation data, the app reinforces access security and minimizes false alarms.

Web application

Used in EDP's command center to monitor operations through intuitive dashboards: installation check-in/check-out, location, name, phone contact, and task. The geolocation and real-time interactive map allow EDP personnel to quickly and easily view the work in progress and the source of any problem that may occur, which is critical in terms of security and compliance with existing guidelines.

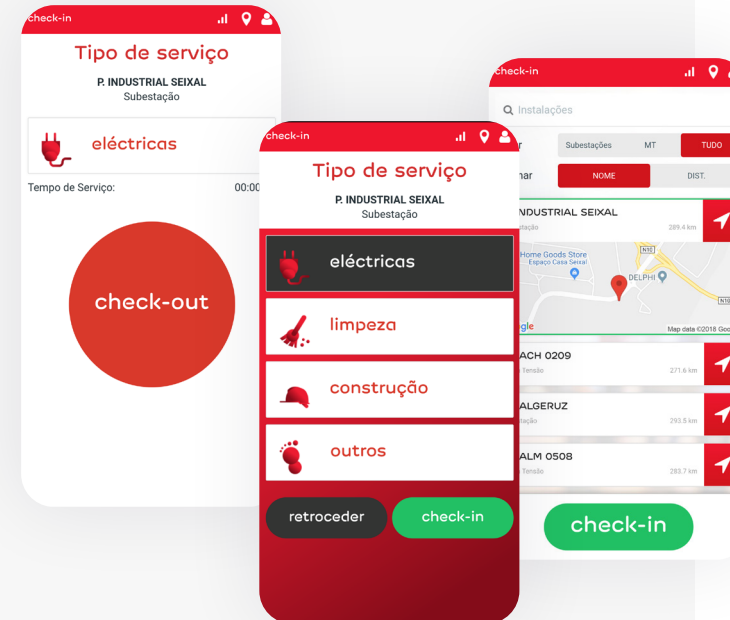


André Paulo

Functional and Business Analyst, EDP



valantic's focus on user experience brought great added value and enhanced the app's adoption level. We now have an app that is simple and easy to use, allowing check-in/checkout in seconds by the technician.





Solution

The mobile application was initially developed in OutSystems 9 and was then migrated to OutSystems 10 to take advantage of its new mobile capabilities, namely offline support. Even in places without data coverage, it's possible to register using SMS.



„Throughout the project there were important contributions from valantic, considering that digitally transforming a process goes far beyond automating what was previously done manually. A very simple feature, but one that our technicians in the field valued a lot, was the inclusion of a Google Maps widget to show directions to the installation from their location. valantic's focus on user experience led to several things like this, which brought great added value and enhanced the app's adoption level. We now have an app that is simple and easy to use, allowing check-in/checkout in seconds by the technician,”

says André Paulo, Functional and Business Analyst at EDP.



Results

Among the main advantages of the implemented solution, there is a clear increase in productivity and efficiency of all EDP's DCD work, with the team focused on value-added and strategic tasks and not wasting time with manual, time-consuming, error-prone activities.

„We freed operators from dealing with entry and exit authorization calls and got the technicians in the field to start working as soon as they arrive at facilities, without wasting time with calls. This, combined with the improvement in security controls by having a platform that quickly identifies who is entering and exiting which facilities, helps EDP assure that in case of an incident, we can restore service faster. This solution provides efficiency all along the line and represents a remarkable value to both EDP and our clients, to whom we want to provide excellent service,“

says André Paulo.

The gains from process automation and optimization will be even greater when the app expands beyond the current 419 substations to include 67,000 transformer stations, giving EDP complete visibility of DCD's operations in the field.

Regarding the future, the goal is to evolve the application as EDP's business evolves and rely on valantic in a continuous improvement approach, along with support and maintenance work.

Key Numbers

- 5 weeks of implementation
- 600+ installations covered
- 67,000 transformer stations prepared for coverage
- 1,721 users
- 10,950 app check-ins + 10,950 app checkouts in 18 months (This corresponds to 22,000 calls avoided - each one taking an average of 30 minutes to be answered in critical periods)
- 5 seconds on average for technicians to check-in/checkout from their mobile phone, saving an average of 1 minute and 30 seconds per service call



Diogo Lopes

Low Voltage Grid Manager, EDP



We are very happy with valantic's work, as they are always striving to find the best solution to every new challenge. In adapting the app to our business rules, there were some issues that we didn't expect and thanks to valantic's creativity and proactivity they were easily solved. The focus was always on results and how the solution addresses our specific needs.



Results



The Benefits



Focused operators

Operators focused on their network supervision core activity



More agile field technicians

Field technicians are more agile with check-in/checkout from their mobile device, not depending on time-consuming phone calls for site entry and exit



More visibility for managers

Managers have full visibility of the work in progress, knowing exactly who is where, when and doing what, with complete security



Satisfied customers

Customers more satisfied with faster problem solving

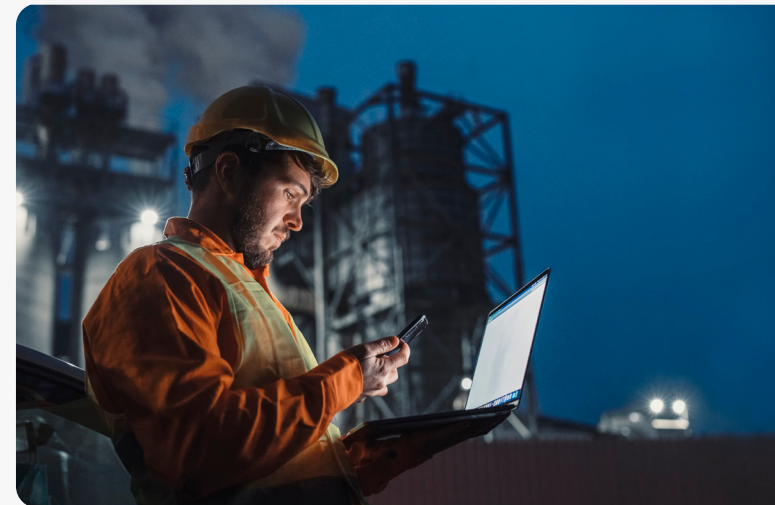


Increased productivity

Increased team productivity, motivation, and efficiency

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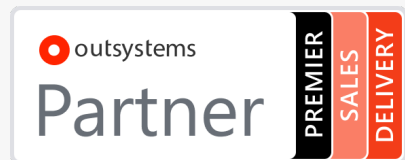


About us

valantic is a services company dedicated to building web and mobile applications using OutSystems low-code platform. We are experts in agile delivery and believe in building lean solutions that bring immediate impact to your business. Serving customers all around the world our experts can help you maximize your investment in OutSystems.

What can you achieve with low-code?

Share your specific business challenges and discover the art of the possible. Lean on us as your trusted OutSystems Partner.



Find more at

www.valantic.com/en/low-code/

