

# Success Story: Modern application for the management of meters of an electric company



*Rootstack helped the electricity company Ensa modernize the platform they use to manage meters, terminals and customer pins*

## About Ensa

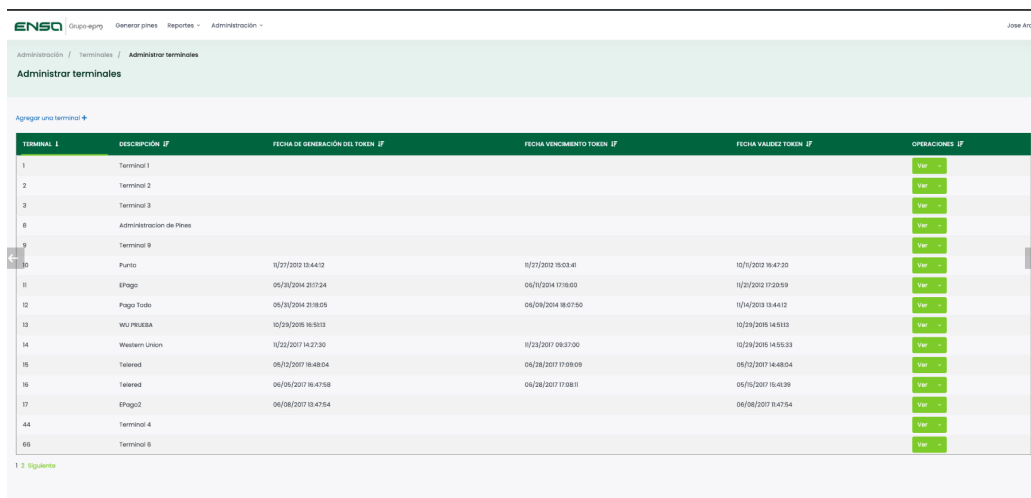
**Ensa** is a company that offers electrical service to more than 449 thousand clients in the Northeast of Panama, managing 15 substations and with more than 20 years of experience in the field. They have always been interested in offering the highest quality solutions to their clients, innovating with their modern management.

## Challenge

Improving its customer service is the north of Ensa, that is why it came to **Rootstack** in order to refresh the image of its **website** for the public, as well as **modernize the internal application** they used for the management and administration of meters, customer terminals and pins.

## Our Solutions

**Ensa** presented all the requirements that they wanted to include in this update of their products, and **our expert team** of engineers and developers did their best to meet the customer's needs.

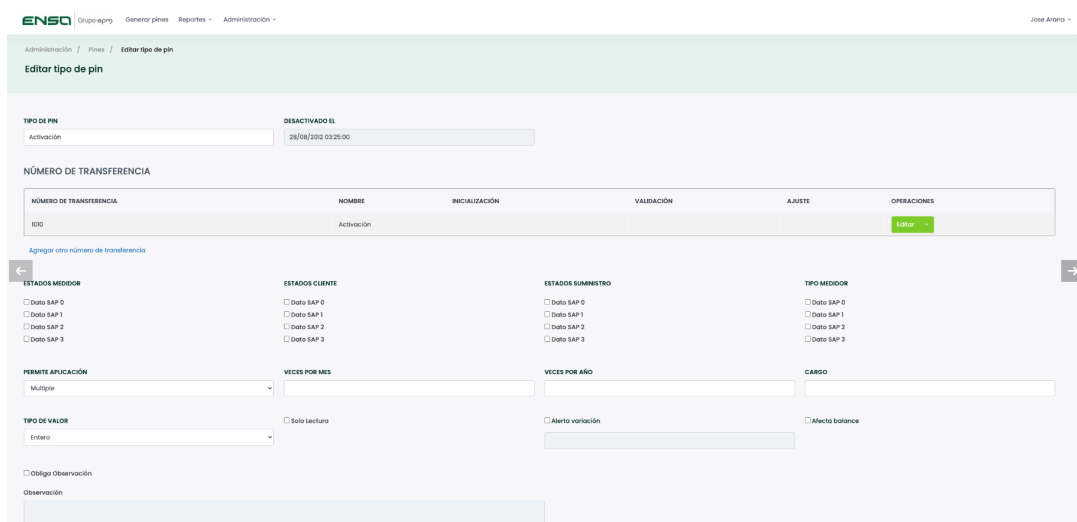


The screenshot shows the 'Administrar terminales' page in the ENSO system. It features a table with columns for terminal ID, description, token generation date, token expiration date, token validity date, and operations. The table contains 17 rows of data, including various terminal types like 'Terminal 1', 'Pago', 'WU PRESEA', and 'Western Union'.

TERMINAL ID	DESCRIPCIÓN ID	FECHA DE GENERACIÓN DEL TOKEN ID	FECHA VENCIMIENTO TOKEN ID	FECHA VALIDEZ TOKEN ID	OPERACIONES ID
1	Terminal 1				Ver
2	Terminal 2				Ver
3	Terminal 3				Ver
8	Administración de Pines				Ver
9	Terminal 9				Ver
10	Punto	11/27/2012 12:44:12	11/27/2012 16:03:41	10/11/2012 16:47:30	Ver
11	EPago	05/26/2014 21:17:24	06/12/2014 17:16:03	11/21/2012 17:20:59	Ver
12	Pago Todo	05/26/2014 21:18:05	06/09/2014 18:07:50	11/14/2013 13:44:12	Ver
13	WU PRESEA	10/29/2015 16:50:13		10/29/2015 14:51:11	Ver
14	Western Union	11/22/2017 14:27:30	11/23/2017 08:37:00	10/29/2015 14:55:33	Ver
16	Teleraed	06/12/2017 16:48:04	06/28/2017 17:09:09	06/12/2017 14:48:04	Ver
16	Teleraed	06/06/2017 16:47:58	06/28/2017 17:08:11	06/16/2017 15:41:39	Ver
17	EPago2	06/08/2017 13:47:54		06/08/2017 13:47:54	Ver
44	Terminal 4				Ver
65	Terminal 6				Ver

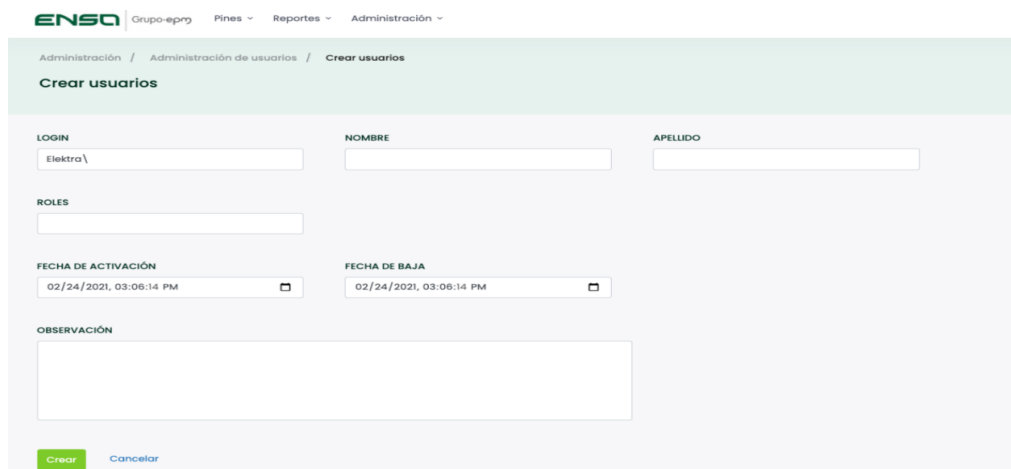
Renewing the company's image was the first task carried out by **Rootstack**: the appearance of both the company's website and the application was refreshed, **improving the end-user experience** and making the platform **more user-friendly** for workers.

**Rootstack modernized the Ensa platform**, creating a much more **intuitive application**, helping to streamline and automate the efforts of this company in the electricity sector. This confirms that **we can always adjust to the needs of customers**, regardless of the industry.



## Application functionalities

This Ensa application that **Rootstack** refreshed, allows company workers to have control of the electricity system and customers subscribed to it. And it does so under the **highest security standards**, thanks to the **user management** option. Within the platform, there are different roles and each of them has different permissions according to the task that the user is going to perform.



In addition, it offers the option of integrating Windows users to those of the application: that is, once the administrator adds the data of a user to the Active Directory, he will be able to log in to the Ensa platform with the username and password that he uses to log into the Windows session in the company.

There is also the option of **managing roles**, being able to create specific roles for users, ideal for when it is required to execute only a certain task. This increases the security of the Ensa platform and avoids misplaced system manipulations.

This solution designed by **Rootstack** also **automates the management of reports** for Ensa, since the administrator can download from the application different reports of the tasks executed in the system, filtering by date, time and user.

## One of our project developers talks about the technologies used

In the development of the platform for Ensa, the **C #** language was used with the **ASP.NET** framework, together with **Oracle**.

**Entity Framework** (an ORM / Object Relational Mapper) was used to handle the logical connection to Oracle. The ORM is a type of tool that simplifies the task of mapping objects in your software to the tables and columns of a relational database.

**Reverse engineering software** was also used to speed up the mapping to database objects and with that it was possible to start developing the platform with the client's data.

With more than 10 years of experience, **Rootstack** can become your best ally when **modernizing your company**, increasing its productivity and performance while automating tasks and saving costs. The **best team of software engineers and developers** offers all their expertise to advise clients on their digital renewal.