



Capturing and Growing Market Share with 10X More Accurate Forecasts

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— Alberto Hernández Seco, Technology Manager, Podo

Podo is a Spanish utilities company, providing electricity to consumers and businesses across Spain.

Challenge

In Spain, electric providers compete for market share based on customer service and rates. Podo is revolutionizing utility services by delivering fully customized offerings. In contracting with Podo for their electricity, customers can receive rates tailored to their usage patterns, along with incentives and information that help them save energy and reduce costs.

The ability to accurately predict how much electricity each customer will use next week, month, and year is at the crux of its success. “Understanding how customers will behave in the future allows us to build customized offers,” said Alberto Hernández Seco, Technology Manager for Podo.

Solution

Podo worked with **Cloudera** to build a **cloud-based machine learning and advanced analytics platform** that enables it to predict individual power consumption, and serve and manage millions of customers in an efficient and customer-friendly way. The platform can analyze millions of lines of data in seconds, reducing the time to select, segment, and deliver information. Customers can view and control their usage via the Podo app, and learn how they can adapt their consumption to times when energy is less expensive.

“We analyze over 40 billion records, along with some streaming data from smart meters and connected devices,” said Alberto Hernández Seco. “We also run a variety of **machine learning** algorithms. The system consistently improves its forecasts as new data is introduced.”

Implementation

In selecting a modern data platform, Podo needed a framework that would run on **Google Cloud Platform**, provide deep monitoring of the cluster, and deliver enterprise security and governance in the cloud. “As a newly created company competing in a mass market of millions, we needed rapid scalability to increase cluster size as our customer base grew,” said Alberto Hernández Seco. “We chose Cloudera for the ease of use, platform capabilities, and flexibility in how we build applications. All our applications are well-managed with **Cloudera Manager**.”

Through its implementation, Podo has also democratized access to analytics. “With Cloudera, we can apply big data thinking across the whole company,” said Alberto Hernández Seco. “No decision is taken unless it is backed by data extracted from the platform.”



Key Highlights

Industry

- Utilities

Location

- Headquarters: Madrid, Spain

Business Applications Supported

- Marketing
- Customer Service

Impact

- Enables creation of micro-targeted campaigns in hours
- Saves consumers and businesses up to 30 percent on electric bills
- Improves accuracy of predictions, with an error rate below one percent
- Democratizes access to analytics for data-driven decision making
- Delivers flexibility to cost-effectively scale as customer demand increases

Data Sources

- Historical customer records
- IoT data from lights and connected devices
- Third party databases for government statistics and property records

Solution

- Modern Data Platform: Cloudera Enterprise
- Workloads: Analytic Database, Data Engineering and Data Science
- Components: Apache Impala (incubating), Apache Spark, Cloudera Manager
- Analytic tools: R, Python, Matlab
- Cloud: Google Cloud Platform

Big Data Scale

- 14 TB

Results

“Podo’s forecasts are now ten times more accurate by applying machine learning against larger data sets,” said Alberto Hernández Seco. “Our error rate is below one percent.”

The ability to rapidly and more accurately analyze customer data allows Podo to create micro-targeted campaigns that help customers save money in a matter of hours. “We can assess what the consumption will be for everyone in Spain for next year to produce fully customized utilities offers for each home in Spain—about 28 million service points,” said Alberto Hernández Seco. “On average, we’re helping consumers and businesses reduce their electric costs up to 30 percent.”

About Cloudera

Cloudera delivers the modern platform for data management and analytics. The world’s leading organizations trust Cloudera to help solve their most challenging business problems with Cloudera Enterprise, the fastest, easiest, and most secure data platform built on Apache Hadoop. Our customers can efficiently capture, store, process, and analyze vast amounts of data, empowering them to use advanced analytics to drive business decisions quickly, flexibly, and at lower cost than has been possible before. To ensure our customers are successful, we offer comprehensive support, training, and professional services. Learn more at cloudera.com.

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1-888-789-1488 or 1-650-362-0488

Cloudera, Inc. 1001 Page Mill Road, Palo Alto, CA 94304, USA

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