

LEAN  CALE

PENTEO

 **cesce**
Seguros de tu éxito

Accelerating Credit Risk Processing

Success Story

Customer & Technology Experience

Customer & Technology Experience analyzes the successful experiences of leading customers in their sector, and aims to provide the market with an **independent view** of the value created by the widest range of possible solutions, services, and methodologies. These assessments are based on the evaluation of supplier data, customer experiences, and analyses performed **by PENTEO's** professionals.

Agility and accuracy are two of the fundamental pillars on which CESCE (Compañía Española de Seguros de Crédito a la Exportación) bases its business. Thanks to the use of the LeanXcale database engine, CESCE has obtained very significant improvements in processing times and cost savings, as well as scalability.

CESCE's new ability to comprehensively process all invoices since 2008 represents a paradigm shift for the business, leading to a superior understanding of the behavior of multiple customer factors and allowing for increased accuracy in securing commercial credit.

Context

CESCE is a commercial risk management company present in 8 countries. One of the two leading companies in its sector in Spain, and one of the top four worldwide, CESCE manages credit and surety insurance in a comprehensive manner. It currently services 140,000 clients. Its main shareholders are the Spanish State (50.25%), Santander Bank (23.88%), and BBVA (16.30%), in addition to other banks and insurance companies (9.57%).

Knowledge of business environment

CESCE has extensive knowledge of the vast, interlinked structure of Spain's business environment thanks to the fact that, within its databases, up to 20% of all invoices issued in the entire territory are included. To give some perspective on the magnitude of transactions handled, this amounts to about 20 million invoices per year.

Thanks to all this information, CESCE can offer its customers solutions that help them manage commercial credit, employing innovative technological solutions that allow them to be at the forefront of the sector.

In addition, CESCE stands out from other companies in the sector due to its precision in risk calculation, thanks to its use of the company Informa as a source of information and access to its customers' invoices.

Evolution in the analysis of risk calculation

CESCE is perfectly positioned to respond to the acceleration and increase in complexity that markets are experiencing, the growing uncertainty about how companies will behave in the face of new challenges, and the ambiguity caused by the lack of behavioral predictability. In light of today's rapid developments, CESCE, in order to continue to increase value delivery for its customers, is seeking new solutions that not only improve the accuracy of its calculations, but also offer greater agility in making them.

8
Countries

140 K
Customers

Posicionamiento Sector

Top 4
World

Top 2
Spain

20 M
Invoices per year

Project description

Need

CESCE, as part of its digital transformation plan, launches a pilot project called RMI (an acronym for Maximum Indemnity Liability in Spanish), which consists of a process that calculates the company's risk exposure. This calculation requires access to a large amount of information, a requirement that dovetails precisely with CESCE's capabilities.

The motivation to initiate this project arises from the requests of CESCE's own analysts for access to 3 years' worth of past data, which means processing around 80 million records.

Goal

In order to be able to accelerate the development of solutions that will allow analysts to access databases with three years' worth of information, CESCE introduces LeanXcale as a provider for the project.

LeanXcale's goal is to address a process that was taking about two months to complete (and required excluding CESCE's two largest accounts as unable to be processed) and reduce this process to less than 24 hours using the same hardware.

This pilot project's approach is based on four premises:

- **Historical advantage:** CESCE has the necessary volume of individual invoices thanks to its more than 20 million invoices processed per year.
- **Problem:** CESCE does not have the necessary technology to process more than 60 million invoices (3 years) through complex and intensive mathematical calculations.
- **Opportunity:** CESCE has the data to have an accurate system for calculating its maximum indemnity liability.
- **Transformation:** Through the use of new technologies, the aim is to speed up a process that used to take more than two months to a few minutes.

The RMI project is part of CESCE's four-year strategic plan for its digital transformation.

Selection of the technology partner

CESCE needed a partner who could provide a completely novel solution; there were simply no existing methods on the market that could achieve their goal. In LeanXcale they not only found a manufacturer that guaranteed access to an innovative database, but also a partner that offered comprehensive support from beginning to end of the project.

Partner End-to-End

LeanXcale delivered support, provided the pilot project, and refocused it in a successful new direction. Their support was present from the very beginning and helped the CESCE team to optimize their existing algorithms, allowing them to improve invoice processing without having to start from scratch. In addition, the project was able to be carried out with CESCE's previous hardware.

Trust and commitment

LeanXcale demonstrated confidence and dedication from the very first moment by understanding and quickly aligning itself with CESCE's strategic needs, making a clear and reliable commitment to them.

Expertise

The expertise and mastery shown by the LeanXcale team when optimizing the database was clearly a major determinant of their success. Today, LeanXcale has developed a solution that offers a competitive advantage, bridging the gap between the worlds of operational data and data analytics.

Use-case driven

The focus and approach of the project through use-cases has proven to be successful. This achieved greater scalability than initially planned, at the same time allowing the development of the project to have a direct and beneficial impact on the bottom line of the business and company.

LeanXcale

LeanXcale is a company founded in 2014 that develops an innovative database. Its accurate and efficient technology for horizontal scaling of transactional processing solves a persistent bottleneck that has plagued databases for decades.

The union of three capabilities

Delving deeper into the solution offered by LeanXcale, it consists of a SQL database engine that has two distinguishing features: a NoSQL key-value interface and the ability to scale horizontally with linear performance.

Due to the popularity of SQL, LeanXcale's SQL DB-based solution facilitates use and allows the reuse of a large part of the previous code. Migration cost is therefore reduced, and adoption is facilitated. LeanXcale can be used from the most common languages, such as Java or .NET, to the most recent ones such as R or Python. LeanXcale integrates with the most popular BI and enterprise software such as SAS, Kafka, or Spark.

The NoSQL interface accelerates the massive ingestion of data from files, other databases, or other data sources, and loads them with speeds not achievable by SQL databases. This speed is maintained regardless of the volume of data to be inserted.

Finally, linear scalability allows on-demand acceleration of processing speed: A process that takes ten hours to run on a LeanXcale server will take one hour if it runs on a cluster of 10 LeanXcale servers. Note that the cost, in pay-per-use scenarios such as cloud environments, is the same.

LeanXcale

The union of three capabilities

This agility and scalability is essential in companies such as CESCE, which have a strong data-driven nature. As they must process ever-increasing volumes of information, any unexpected problem causes a chain reaction throughout the organization which risks affecting other business departments.

Likewise, if companies want to offer better services and cultivate customer value, they are often limited by processing capacity, both in speed and volume. LeanXcale breaks those limits.

Not only can LeanXcale grow linearly, but it can also grow alongside each company's legacy hardware. LeanXcale can also run in virtual environments, in containers, or deployed in any cloud, further facilitating application, and encouraging future use.



Challenges to consider

CESCE's great challenge from the beginning has been to shorten processing times while including all invoice information from the previous three years, in order to not only improve the accuracy of risk calculation, but also to be able to understand the behavior of companies in stressful situations. The solution should allow:

Agile results that improve performance

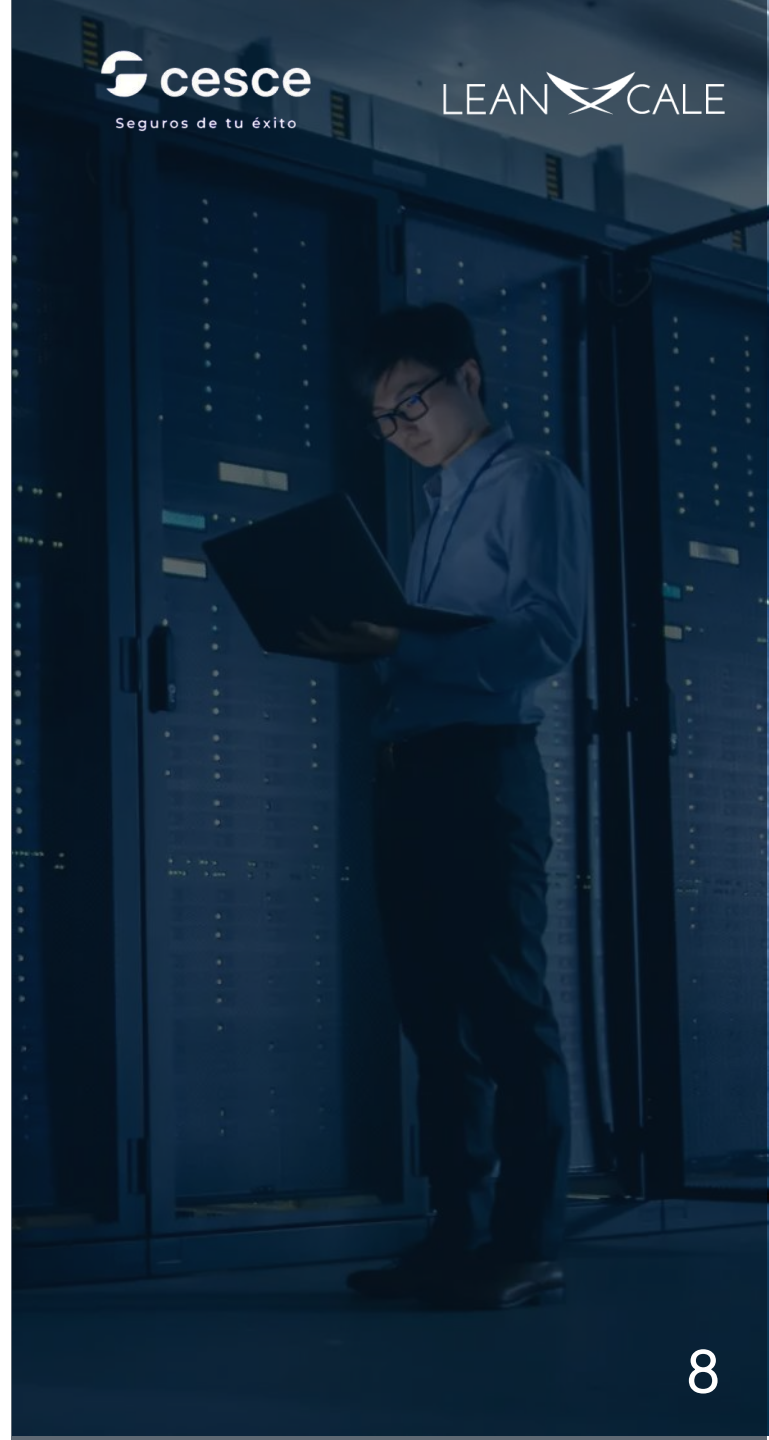
A crucial part of CESCE's success and competitive advantage is not only accuracy, but also being able to offer its credit risk calculation services quickly while basing them on the largest possible amount of data. The volume of data versus the speed of processing are two opposed vectors that often make it necessary to compromise on analytical strategies.

Processing assurance

The increased operational risk of any unexpected problem in the execution of long processes impacts not only the company's income, but also the confidence transmitted to customers. Being able to improve stability and reduce risk would lead to an increase in ROI that would then be reflected in the P&L.

Hardware Legacy

The initial pilot required that efforts to improve performance had to be done while maintaining the hardware already available. For many solutions on the market this not an option, but for LeanXcale this an easily-met request.



Impact on CESCE's operations

CESCE highlights LeanXcale technology's remarkable impact, going far beyond expectations, which can be seen in:

Performance improvements

Both daily load (65x) and initial load (257x) speeds are radically faster than previously achieved.

Cost reduction

The technology offers up to 85% reduction in licensing costs and 90% reduction in TCO compared to the previous scenario, allowing optimization of infrastructure costs.

Increased efficiency of the analytical team

With this new database, analysts significantly improve their efficiency. This time reduction enables a complementary increase in the time that analysts can be working and iterating the information.

Reduced operational and business risk

Thanks to the increased speed, CESCE reduces operational risks caused by any unexpected problem and can execute processes several times a day.

Increased analysis capacity

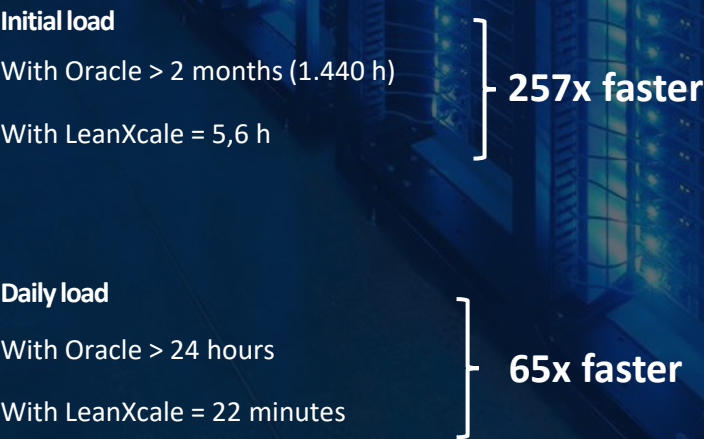
By improving speed, a greater volume of information can be processed more frequently, resulting in higher quality analysis. For example, CESCE changed its initial three-year processing plan to processing full economic cycle since 2008.

Better decision making

Despite previously having the information, CESCE could not make use of it because they did not have the capacity to analyze it.

Highly significant improvements in loading times

To better understand the impact that LeanXcale technology has had on CESCE's processes we must look at the impressive reduction in processing times:



Business benefits and impact

Value brought to CESCE

The analyst team initially needed to process three years of invoices, but the significant improvement in processing capacity now allows for a full business cycle analysis beginning from 2008 (e.g., the 2008 crisis, 2020 pandemic, etc.) combining information from more than 475 million records derived from more than 200 million invoices. This provides the following capabilities:

- **Greater understanding of debtor behavior** under different stress situations.
- **Risk customization:** by being able to analyze with greater agility and with a greater amount of data, the risk of each client and debtor company can be customized to levels that were previously impossible or even unimaginable.
- **Better risk estimation:** this improvement implies the reduction of capital reserves, which has a directly positive impact on both profits and the company's profitability.

Possibilities with LeanXcale

With LeanXcale technology, executives with a technical profile can present multiple benefits to reinforce the value that their department brings to the company:

- Solve information processing problems that impact other business areas by reducing the time-to-market, risk, and total-cost-of-ownership of the project, thanks to its affordable licenses and unbeatable performance.
- Embrace new ways of creating revenue streams and new services, thanks to LeanXcale's shorter processing times and real-time processing capabilities.

"There has been a 250x reduction in processing time."

"LeanXcale has enabled analysts to not only work with three years of invoices, but 14."

"LeanXcale processes information collected from more than 475 million records on more than 200 million invoices."

"LeanXcale has enabled up to 90% reduction in Total Cost of Ownership."

PENTEO

DIGITAL - INNOVATION - TECHNOLOGY



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One factor that uniquely characterizes large digital companies is that they have managed to make their data a source of unique and differential competitive advantage. Current data from PENTEO indicates that about 36% of companies have forecast implementing such solutions over the next 12-24 months, yet only 26% of companies have it as a top priority.

Companies like CESCE are ready to take on this type of challenge, but face a major barrier when it comes to successfully piloting and experimenting with these technologies. Thanks to the leadership and guidance of LeanXcale, CESCE has been able to build a DB architecture offering greater stability and an unprecedented increase in processing speed. This groundbreaking approach offers not only improved accuracy in its risk calculations with data from the last three years, but also, when considered in terms of the processing speeds obtained, poses a paradigm shift that opens up new and previously unimaginable possibilities for analysis. Being able to analyze the behavior of companies from 2008 to the present day is a new reality that will not only improve calculations, but will also make it possible to adjust each analysis with greater precision, increasing the ROI obtained and reducing risks.

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