

OPTIMIZING TAX MANAGEMENT THROUGH ANALYTICS

IMPACT

- Data storage costs reduction 10x
- Infrastructure and license costs reduction 4x
- Governed knowledge model of analytics and BI

Agencia Tributaria de Cataluña (ATC) is the public institution in charge of managing, settling, inspecting and collecting individual, regional and federal taxes collected by the regional Government of Catalunya (Generalitat de Catalunya). It is also responsible for optimizing the performance of the ATC's IT infrastructure.

ATC's mission is to efficiently collect the taxes that ensure hospitals, schools and other public services are able to serve the needs of Catalonia's 7.5 million inhabitants and 627,700 enterprises. The financing of these public services depends on the income managed by ATC and the other tax agencies in Spain.

Challenge

ATC has always adopted a forward thinking, data-driven approach. Whether to detect fraud, track tax collection or make its services more accessible, data has been at the heart of its strategy and, as such, ATC has invested in tools and platforms to extract value from it.

Javier Fernández de la Fuente, Head of Technology Services at ATC, states: "Data has consistently been the key ingredient. The difference is how we used to manage it before and how we manage it now."

In the past, ATC had different applications for data management, each with its own language. This created silos that the organization bridged through individual business intelligence (BI) projects to try and unify the information. Whilst ATC was able to extract the data, process and integrate it in order to generate the insights it needed, such an approach was becoming increasingly expensive.

Fernández adds: "Our previous approach was not sustainable. We discovered that there was a different way of doing things; integrating data, building a corporate knowledge model under different technologies that was capable of bringing together all phases of the process".

Solution

ATC deployed Cloudera Enterprise Data Hub Edition and Cloudera Stream Processing to bring together analytical workloads and integrate all BI concepts. A master data management model and data lakes project have been defined. This includes the operational element that provides services to the applications, and another one that concentrates all the information. In addition, a governance model has been built to allow information to be published dynamically in the applications, with new master data management that establishes a single source.

The analytics model built with Cloudera technology improves efficiency across many different aspects of ATC's processes, from fighting fraud through to automatic ticket resolution. In addition, ATC now has a data quality tool and a document repository to convert data into insights at greater speed.

Fernández says: "As we move forward, we recognise that we need to ingest and analyse data faster in order to derive value from it. We have embarked on a technological revolution, and Cloudera, with its enterprise data management platform, is the epicenter of it all."

10X

Space costs reduction

“Working with Cloudera allows us to optimize old projects with advanced analytics. We’ve turned spending into investment.”

Javier Fernández de la Fuente, Head of Technology Services, ATC

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world’s largest enterprises. Learn more at cloudera.com

Results

The new strategy has enabled ATC to become more sophisticated - and it’s the Catalan citizens who are benefitting as tax processing speeds have increased significantly. Fernández states: "We have reached a working model where we are very efficient, and now we can implement projects with several technologies in just a few months. Before, it used to take years. For example, we have implemented and fully integrated the census of taxpayers of the Tax Agency of Cataluña in just three months. Before, this process didn’t take less than a year, almost fifteen months."

ATC is now able to process data at a speed and pace that was unfeasible in the past. Cloudera's technology also allows for tax data crossovers, advanced analytics and optimized re-engineering processes. Fernández notes: "Before, we were much more limited. Cloudera's technology gives us capabilities that were unimaginable."

In document management tasks, data storage costs have been reduced by up to 10 times. Infrastructure and license costs in census work have been reduced by 4 times. Analytical models improve collection and working hours. As Fernández says, with a minimum investment, a very high return has been obtained on certain actions, such as the fight against fraud, and an accumulated benefit thanks to process optimization.

Future

Although it is a progressive change, public institutions are convinced that the future must be the cloud. Cloud not only enables more agile management and optimization of analytics, but also lets organizations incorporate and integrate technologies that bring together the entire machine learning management process: from algorithm training to graphics processing unit (GPU) capabilities.

The digital transformation is happening fast and ATC continues to innovate. It is thinking ahead and already working on intelligent automation projects for data processing and analysis. Fernández observes: "It's hard to know what we'll be able to do in the future, but there are many things that can be done now. The key is how to take advantage of technology in the best possible way with the capabilities we have at present."