

USE CASE

OPTIMIZING CORPORATE PROCESSES AND DATA TRANSFER IN THE INTEGRATION LAYER THROUGH EFFECTIVE API MANAGEMENT

In the competitive retail sector, our company, a benchmark in Asset Management, embarked on a journey to modernize its IT systems. This included migrating and standardizing our API Management layer to a more advanced and versatile technology. This upgrade was designed to optimize the processes of designing, publishing, documenting, and analyzing APIs, creating a secure environment that fosters efficient and real-time data transfer within our application ecosystem.



Sector
Retail

Solution
Azure API Management

Delivery Unit
Enterprise Application Integration



130
APIs
Migrated/Implemented



19
Applications
Connected

THE CHALLENGE

APIs are fundamental in the agility of corporate data exchange and, therefore, essential in the digital transformation of companies, and it is not surprising their current massive proliferation in the corporate world.

A modern API Management system currently constitutes a layer that allows us to achieve some competitive advantages, namely through the following capabilities:

- > **API Design:** the ability to design, publish and implement APIs as well as registration documentation, security policies, descriptions, usage limits and other relevant information;
- > **API Routing and Security:** Serve as an API gateway, which acts on relevant API security policies and requests and also ensures authorization and security;
- > **API Catalog:** ability to keep APIs registered in a catalog, so that they can be presented to interested parties, internal or external, with the respective benefits;

- > **API lifecycle management:** APIs must be managed from design, through implementation, support until their discontinuation.
- > **API data analysis:** monitoring API usage and respective calls, namely: which consumer, segmentation, loads, transaction logs, historical data and other metrics or KPIs, which inform status and usage.

The company in the retail sector had an API Management layer in its Middleware layer supported by the WS02 solution, available as Software as a Service (SaaS) but was nevertheless an open-source solution, the company wanted to improve its technological technological solution to respond to the company's Governance Strategy of the company, in the sense of greater standardization of products and to have a more robust more robust solution in terms of data transfer and and data transfer, which translated into an effective optimization of corporate processes.



GOALS

In this way, the following specific goals were to be guaranteed:

- › **Migration of applications** that were at the moment in WS02 to a **new solution of API Management**;
- › **Standardization** of the type of communication at the level of communication protocols (REST);
- › Provide the API Management layer with greater **robustness** and **resilience**;
- › Provide the API Management layer with **greater development agility**;
- › Incorporate the remaining pool of **API's into Azure API Management**.

SOLUTION

In this pivotal decision-making process, Noesis played a crucial role in guiding the retail company towards migrating to the Azure API Management solution. With a focus on enhancing efficiency and streamlining communication across its application portfolio, the primary goal was to harness the power of a robust, high-performance API Management layer. By leveraging this solution, the company unlocked numerous advantages, paving the way for seamless integration and optimized performance.

For this, it was implemented a two-phase Project:

- › **Migration of the API's until that moment in WS02 to Azure API Management platform and testing**;
- › **Incorporation of the remaining existing API's** not catalogued in WS02.

Throughout the Project, in parallel to the migration, it were also refactored some API definitions to be possible to adequate them to the REST protocol and simultaneously **it was built a CI/CD pipeline per API, using the AZURE API Management capabilities**.

THE RESULT

With this approach it was possible to reach the proposed goals of **building a more robust, secure and agile API Management system**, with direct impact not only in **the efficiency of data transfers** (and thus optimizing the companies processes) but also more agile in accordance to a good lifecycle of development (helping to reduce the time and effort that normally are needed in the application development aspect).



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