

Success Story

Federal Public Service Policy and Support (FPS BOSA)

PROVIDING FAST, CONVENIENT DIGITAL ACCESS TO GOVERNMENT SERVICES



Geography

Belgium

Industry

Government

Challenge

A key challenge was to deliver new capabilities without negatively impacting existing consumers and providers of services. We also wanted to modernize our security around APIs, to ensure that we could protect sensitive data at all times.

Solution

BOSA worked with Sopra Steria to deploy the AMPLIFY™ API Management solution to support the Belgian Federal Service Platform (FSP).

Results

- Cost-effective scaling of services as demand and user numbers grow
- Enhanced security and performance, plus support for containerization
- Secure access to data for citizens and companies in Belgium

In the digital age, citizens and businesses alike expect greater ease, speed, and convenience when interacting with government agencies. In response, public organizations have increasingly embraced e-government services, whereby manual processes are digitized and made available online.

As the Policy and Support organization serving the Belgian federal government, BOSA is helping to drive digital transformation as the logical evolution of e-government. A key element in this transformation is the creation of the Federal Service Platform (FSP), which offers standardized infrastructure services and software solutions to government agencies. As the government of Belgium is fragmented across federal, regional and communal levels, FSP provides behind-the-scenes connections between multiple agencies and sets of data.

François Soumilion, Domain Architect at BOSA, says, "BOSA works horizontally across the government-agency verticals, providing connected services that promote the sharing of data. This is not just about internal efficiency and cost-savings; under the Belgian 'Only Once' law, a government agency may not from a citizen or company if that entity has already provided the same information to another government agency."

To facilitate the sharing of data, BOSA manages hundreds of web services and APIs to connect "authoritative sources"— defined sets of reference data on people and companies, such as national registers of personal address data and medical data. As part of the ongoing digital transformation, BOSA wanted to modernize access to these information sources by moving to an all-API approach.

"As we began to phase out our SOAP-based web services in favor of modern APIs, we could see that costs were rising rapidly for our existing API management tool," says Soumilion. "Budgets are extremely tight at all levels of government, so we needed a much more efficient platform that could scale to meet huge demand without a corresponding rise in costs."

Under the software licensing model for the existing API-management tool, BOSA faced near-linear scaling of its fees as volumes grew, which meant the organization risked becoming a victim of its own success.

Deploying a modern solution

To achieve its targeted cost reduction and enable cost-effective future scalability, BOSA set out to find a rock-solid API-management platform that could also support its legacy services during their steady phase-out.

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Following a public RFP exercise, the Belgian government shortlisted three possible solutions and ran several weeks of proof-of-concept exercises. "The Axway solution was far and away the best, both in terms of its technical features and the overall price-to-quality ratio. The commercial terms were also the most favorable, enabling us to plan for significant growth in service volumes without an unsustainable rise in fees," Soumilion explains.

BOSA worked with **Sopra Steria** as the prime contractor for deploying its new API gateway solution, built around Axway's AMPLIFY API Management solution. The Axway solution enables transparent migration of legacy services while powering faster and more efficient implementation of new pure-API services.

According to Soumillion, "The Axway solution addresses the challenges we face and also supports a modern scaling method with Docker containers — which was not an option with our previous technology."

The solution from Sopra Steria and Axway provides a multi-tenant API gateway based on REST, SOAP and XML services, and will enable self-provisioning of new APIs. BOSA now creates all new services based on APIs and will steadily retire legacy SOAP-based services as they become obsolete over time. To help ensure compatibility between services offered by government institutions, BOSA works with other federal partners to maintain an evolving style guide for RESTful services – hosted at <https://www.gcloud.belgium.be/rest/>.

Reaching out to national users

Working with **Sopra Steria** as a key strategic partner, BOSA has built approximately 30 APIs to date with the Axway solution, including services that support the national eBox project in Belgium. eBox is a secure document-sharing platform that enables millions of citizens and companies to send and receive official documents, including tax declarations, financial returns, and pension statements. Users can either use the eBox portal directly or access their data through a number of approved Human Interface Providers, including banks and insurance companies.

"Citizens and companies can choose their preferred channel for communicating with the government — we're working with existing services rather than trying to replace them," says François Soumillion. "AMPLIFY API Management handles all of the integration between the document senders on one side and the document receivers on the other side. We provide automated onboarding and standard REST APIs, making it easy for approved third-parties to integrate secure eBox services into their systems."

A second major API project at BOSA is the Belgian Street (BeSt) initiative. The three regions of Belgium have separate systems for managing all information on streets, resulting in three separate "authoritative sources" of data. Meanwhile, the majority of administrative bodies that use street data work at a national level. The BeSt initiative uses an API gateway to enable users and systems to query the three data sources transparently, for a seamless view. AMPLIFY API Management securely mediates between the sources and the consumers of data.

"Beyond eBox and BeSt, we offer a number of other API-based services," explains Soumillion. "For example, we enable government organizations to access data archival as a service, enabling us to reduce storage costs while remaining compliant. We're also working on a project called 'Putting Data at the Center,'[©] which will enable the self-service creation of tailored APIs that will deliver precombined data from multiple sources to new applications."

Much of the data handled by the various verticals within the Belgian government is highly sensitive — for example, tax information on individuals and corporations, address and social security details, and personal health records. Using the Axway solution, BOSA has set up basic-, medium- and high-security profiles based on the latest industry-standard security features built into the platform, including Java Object Signing and Encryption.

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Reaching out to national users

AMPLIFY API Management ultimately helps citizens and companies in Belgium access government data and services in a more convenient, secure and seamless way. The solution also helps government organizations present a single face to the public, hiding all the underlying complexity and fragmentation across geographic and functional dimensions.

"Citizens don't always know whether they need to contact the communal, regional, or federal government," Soumillion says. "Using the Axway solution, BOSA is making the necessary connections at the back end so that the government appears as a single entity."

From BOSA's perspective as the service provider, the Axway solution provides a common platform for managing all data connections — from legacy SOAP-based web services to the latest APIs. The solution supports containerization, which enables BOSA's plans around scalability, and the licensing model means the organization can manage enormous growth in service volumes without corresponding increases in software fees.

"In the past, we managed around 200 consumers of data," says Soumillion. "Today, with eBox in place, we are potentially reaching out to seven million citizens over the age of 18, connecting them with up to 6,000 information providers. We simply could not handle this workload without AMPLIFY API Management. As we continue to evangelize for the use of REST API across the Belgian government, we are confident the Axway solution will support enormous growth in the services we provide — ultimately representing significant efficiency gains for the country as a whole."

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Sopra Steria at a glance

Sopra Steria, a European leader in digital transformation, provides one of the most comprehensive portfolios of offerings on the market, spanning consulting, systems integration, industry-specific solutions, infrastructure management and business process services. It provides end-to-end solutions to address the core business needs of large companies and organisations, helping them remain competitive and grow. Combining added value with innovative high-performance services, Sopra Steria excels in guiding its clients through their transformation projects to help them make the most of digital technology.

More than **50 ans of expertise** More than **46 000 people** **25** countries Generated revenue in 2019 of **€4,4 billion**

Contact

axway@soprasteria.com