



SERUNION

# Performance improvements migrating to AWS

Serunion web services migration to AWS brings a 40% performance improvement without losing out on availability



Serunion is a private company operating in the food service industry for more than 30 years in the Spanish and Portuguese market. Amongst their primary services, Serunion produces and **delivers food to multiple sectors such as education, healthcare, travel or leisure.**

On top of this activity, Serunion also owns airport food concessions on restaurants and cafés. Their logistics allow Serunion the setting and cooking process directly where the client is, and they can also produce menus upfront on their own premises and distribute them after as requested.

Located in the Iberian Peninsula, is part of Elior Group, a French global operator and leader on the contracted food and catering services market, operating in other 16 countries. Nowadays, Serunion has more than 19.000 professionals, 23 offices, 5 vending subsidiary offices and 14 central cooking kitchens that enables them to deliver food to 470.000 diners on a daily basis along the Iberian Peninsula. As core values, Serunion is committed with society's wellbeing food habits and people, in favor of using local products to elaborate healthier and more natural menus.



## The Challenge

The new school year (2017-18) was about to start and Serunion forecasted an increase on the number of existing customers. In this scenario, **the infrastructure on-premises and the current resources were not powerful** enough to provide an optimum service, capable of managing the expected increase in traffic without jeopardizing the platform ´s performance.

**The volume of users that was expected to grow was estimated between 20% and 30%.** Serunion decided not to invest in more physical resources and instead, tackle the problem **by migrating their Oracle database and Serunet (their own suite of applications) to AWS.** Serunet web service platform was extremely complex and it was key to Serunion ´s daily operation system

“The project started because VMware was obsolete, and we had to migrate and invest on hardware. Migrating Serunet was a huge project because it has multiple layers that are interconnected, and they impact one to each other in all our business areas. This fact made it challenging and crucial. Syntax understood that timings were very limited because they had to match with the school starting calendar. The project was successfully delivered within 2 months and a half and we managed to launch the new architecture on AWS.”

**Ricardo Carrillo**  
*IT System's Manager*  
Serunion



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## The Solution

Before migrating Serunet's web service platform to Amazon Web Services, Syntax proposed a proof of concept on their on-premises **SAP BI and SAP Business Object** migration to AWS, an Oracle 11g database. "As part of our cleaning process, an archiving had to be performed.

At that time, the infrastructure was already limited on capacity and Syntax suggested the deployment of the new server directly on AWS", says **Ricardo Carrillo, IT System's Manager at Serunion.**

A proof of concept was put in place using **AWS Database Migration Service (DMS)**, reducing migration times, avoiding down-times and improving Oracle's overall performance in the cloud

Once the SAP migration was finished, Syntax helped Serunion on their second large migration project to the cloud, the web service applications:

"SAP migration process to AWS proved that we were capable to expand, and we needed to increase resources on Serunet. Together with Syntax we designed the right architecture in order to execute the migration of this platform to Amazon Web Services", affirms Ricardo.

"We experienced between 40% – 50% improvement in something that was as simple as increasing hardware resources. While on-premise we were limited in capacity, now we are capable of growing"

**Ricardo Carrillo**  
*IT System's Manager*  
Serunion

Serunet web services migration was designed and carried out following AWS best practices in areas such as architecture, security and availability in order to deliver all AWS cloud flexibility, scalability and performance benefits to Serunion. **Serunet is formed by 5 layers of application**, which are responsible to interact between the website and the rest of Serunion's applications.

Out of the 5, only one was built on high availability. **The migration process to AWS enlarged to 3 their set of applications on HA.**

As the servers were already built on a virtual VMware environment, Syntax suggested the use of **AWS Server Migration Service (SMS)** that allows migrating large workloads to AWS in a quick and easy way. At the same time, it helps with the automation, setting and monitoring of incremental replications of live servers.

Such benefits were key to improve the orchestration of Serunet web services migration. A large-scale server migration process was conducted **avoiding any down-times and without affecting the daily routine of their users**, which were two of the main concerns for Serunion.

The resulting migration was carried out at production level successfully. Once the migration was performed, all servers were adjusted and resized, so they could now respond and adapt to the platform requirements and traffic requests in each moment in order to achieve better availability. Equally, the various web services were allocated in different Availability Zones (AZ) securing the availability of the platform in case any external factor could take place. Apart from AWS Server Migration Service, below are listed other AWS services that were used on the design of the new architecture as well as the migration process itself. A total of **12 applications were migrated successfully, 2 of which were on SAP and the other 10 on Serunet, were web services applications.**

- **Amazon EC2**  
More than 50 instances.
- **Amazon Route 53**  
Acting as a domain DNS agent on AWS, scalable and high availability capable of offering reliance and profitability when redirecting traffic to Serunet web service applications.
- **Elastic Load Balancing (ELB)**  
Enables the automatic traffic distribution within the different machines and provides high infrastructure availability at the same time.
- **Amazon Virtual Private Cloud (VPC)**  
Through AWS Direct Connect to establish a private virtual and secured network connection between Serunion and AWS.

## The Benefits

The web services migration to AWS allows that all applications are now sitting on a flexible environment capable of **managing scalability at all levels, as well as improving response times.** “Apart from the performance, there was also an improvement on scalability. Serunion is growing in a project called Operational Excellence where we have set the digitalization of 2,000 out of the 3,000 current centers. **We are confident that with the new platform, the scalability is now a reality**”, explains Ricardo.

Such factors have had an influence on the development of a platform that counts with a **greater performance and availability** because the number of servers has been increased in the various application layers. Thereby, as the applications are now on high availability, system failures can be prevented without affecting the end user.

Another of the main benefits is the current web services **capacity to increase and decrease depending on the traffic**, bringing full availability to the platform. Such competitive advantage was precisely one of the main goals Serunion had in mind at the beginning of the project. In conclusion, **the platform has now more capacity, runs quicker and it counts with high availability** in 3 out of their 5 layers, securing its ongoing performance, even if a failure or downfall occurs.

“There has been 40% performance improvement on reporting tasks in Serunet, especially on timings. If a process was taking 2 minutes on-premise, now it only takes 1.10 seconds. We have streamlined executing processes on Serunet, achieving one of the key objectives for us: the user’s experience”

**Ricardo Carrillo**  
*IT System’s Manager*  
Serunion

“Technological change has been applied which means downtimes are non-existent when it is necessary to increase resources, at the same time as it brings HA to the entire platform”, states Ricardo. On top of this, the migration to AWS was carried out taking into consideration the strict deadline conditions the project:

## The Future

Serunion´s road map at the IT level includes a series of projects that are planned to continue to work using Amazon Web Services and Syntax. Those pilot projects are mainly related to the web services, SAP ERP and database systems and are listed below:

- Set up AWS Elastic Beanstalk in order to automate the horizontal scalability of resources and better adapt to the traffic of each application allowing improvements in speed and agility.
- Maintain and adjust scalability as Serunion keeps growing choosing the right reserved AWS resources so the costs are kept down.
- Migration of SAP ERP and Solution Manager to AWS using AWS Server Migration service (SMS) with the aim of minimizing system failure risks.
- Improve Oracle´s database system hosted in the cloud converting the current EC2 IaaS to PaaS with Amazon Relational Database Service (RDS).
- Change Oracle to PostgreSQL to achieve license cost reductions by using AWS Schema Conversion Tool.

“We managed to achieve all goals within the tight timings that were initially set. The migration process was done overnight and the next day we put in place a series of checks with key users to confirm the success of the operation. Right after that, a release was sent to the overall company confirming that the platform – with their applications and web services – had been migrated to AWS and was in production”

**Ricardo Carrillo**  
*IT System's Manager*  
Serunion

## ABOUT SYNTAX

Since 1972, Syntax has been providing comprehensive technology solutions to businesses of all sizes with thousands of customers trusting Syntax with their IT services and ERP needs. Today, Syntax is a leading Managed Cloud Provider for Mission Critical Enterprise Applications.

Syntax has undisputed strength to implement and manage ERP deployments (Oracle, SAP) in a secure, resilient, private, public or hybrid cloud. With strong technical and functional consulting services, and world class monitoring and automation, Syntax serves corporations across a diverse range of industries and markets.

Syntax has offices worldwide, and partners with Oracle, SAP, AWS, Microsoft, IBM, HPE, and other global technology leaders. Learn more about Syntax at [www.syntax.com](http://www.syntax.com).



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