

# Cosoft

## Migration from a Limit Cloud Solution to AWS SaaS by using Amazon Aurora for storing data

### About the Customer



Cosoft provides infrastructure for different types of events through the Evest platform (which is a SaaS product for the management of congresses, events and / or conferences) and using services such as WHM and cPanel for providing hosting services (Web Server, Mail Server, Hosting of the Domain of the event, etc.)



### Executive Summary ▼

Cosoft provides infrastructure for different types of events through the Evest platform (which is a SaaS product for the management of congresses, events and / or conferences) and using services such as WHM and cPanel for providing hosting services (Web Server, Mail Server, Hosting of the Domain of the event, etc.)

Due to the limitations of its infrastructure and architecture, the entire platform was running on a single server (BD, Mail Service, Application), the service was limited to small events, no more than 600 people in addition to the lack of high availability and automation, the environment did not had the essential elements such as fault tolerance, robustness in the platform and security.

### The Challenge ▼

Create a highly available, robust and secure platform that can host any type of event regardless of its size, in addition the automation of the infrastructure creation in the cloud along with automatic pipeline for deployments are essential factors for the platform so then tools like CodePipeline and Cloud Formation are required as part of the solution.

## The Challenge (continued)

The main points that the new architecture must have:

- Infrastructure as Code (IaC)
- CI/CD pipeline for deployments
- Multiple simultaneous events
- Independent horizontal scalability for each account and / or customer (Uniform SLAs and performance)
- Automated event supply
- WHM and CPANEL license savings
- Security

By having the MySQL database within the same instance, it was exposed to crashes since the instance was exceeded and occurred in errors or crashes. Which generated loss of important data for the company.

## Why AWS

AWS is a cloud platform which has all the necessary services to create a robust, multi-tenant, highly available, highly scalable, and secure infrastructure.

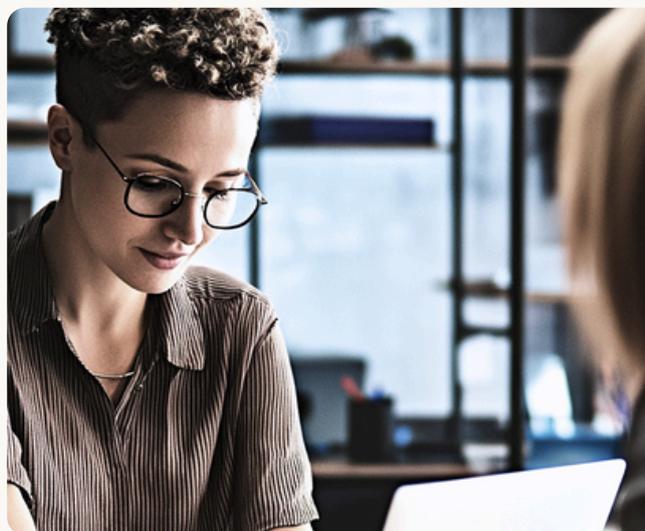
## The Solution

The new architecture whose design was thought for running entire over the cloud, includes an interface(web application) which interact with AWS services in a clear and easy way helping in the creation and configuration of the architecture that provides support a particular event, besides the platform design was created following the best practices that recommends the AWS Well Architected Framework where are highlighted the following points:

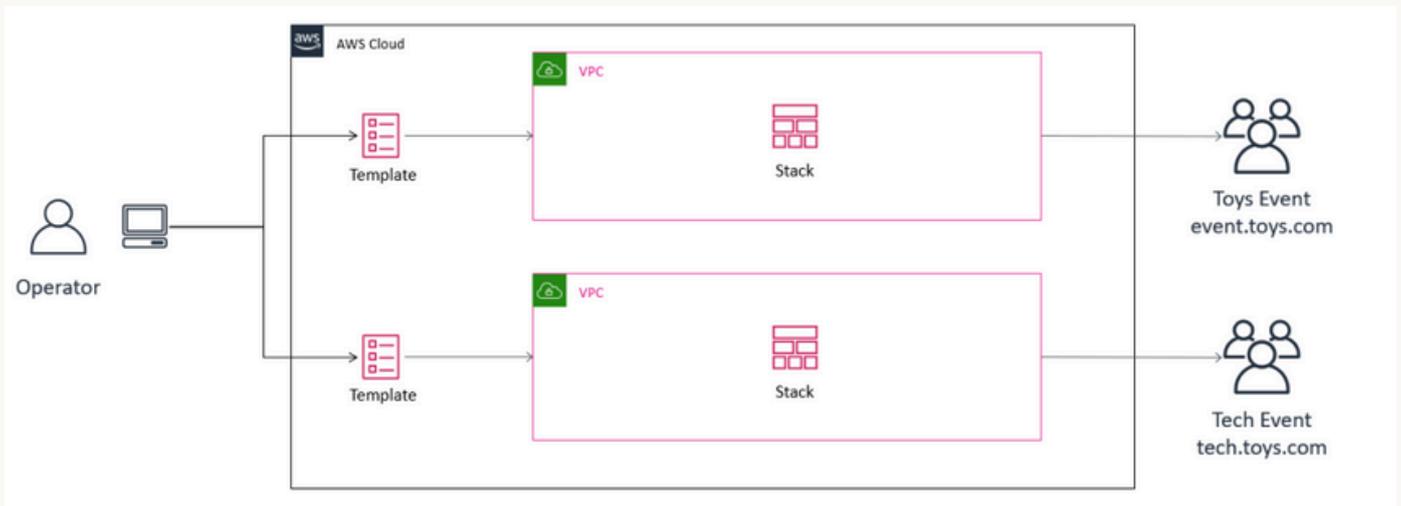
- 100% AWS based solution
- 100% SaaS
- DevOps
- Automation
- Accounts Isolation
- Infrastructure as Code (IaC)

### "Robust, Elastic and multi-event architecture."

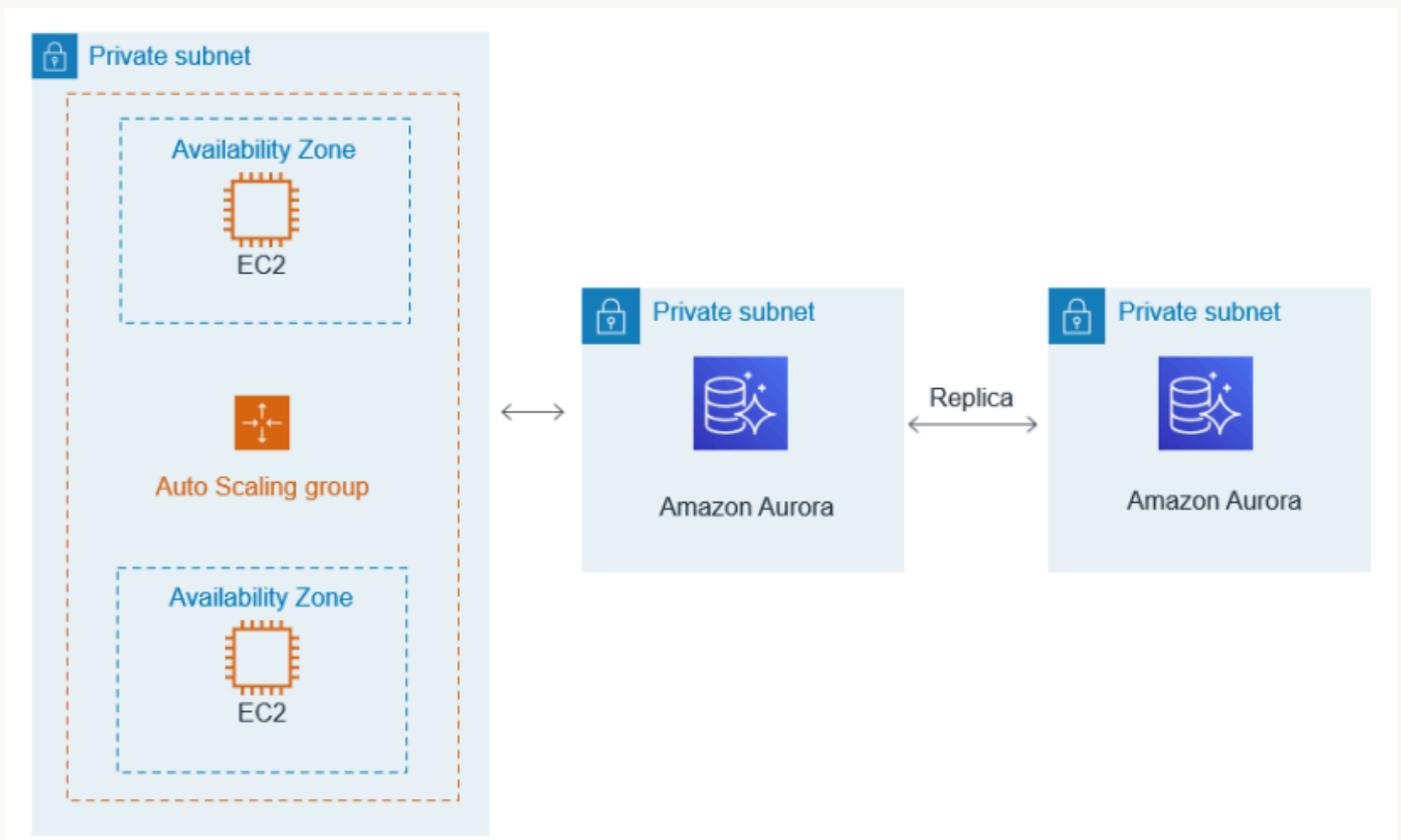
-  100% AWS based solution
-  Operators provide accounts for events from an easy-to-use interface
-  The necessary infrastructure for each new account is automatically generated using CloudFormation (Infrastructure as Code)
-  Loading tests were performed, the infrastructure received around 20 thousand requests, maintaining constant performance in response and use of resources
-  The solution has best security practices



## The Solution (continued)



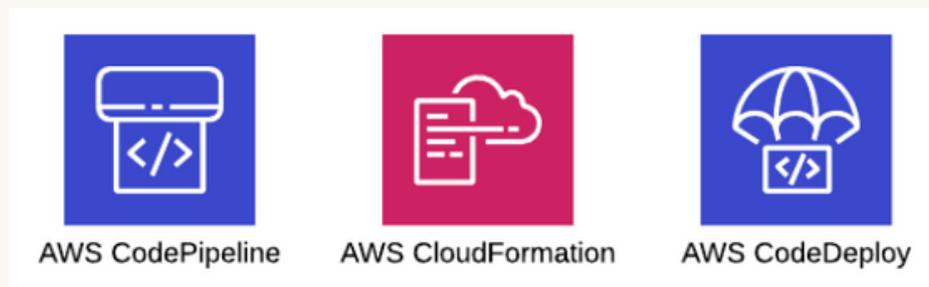
Nova separates the database from the EC2 instance and Amazon Aurora DB will be used instead.



## Results and Benefits

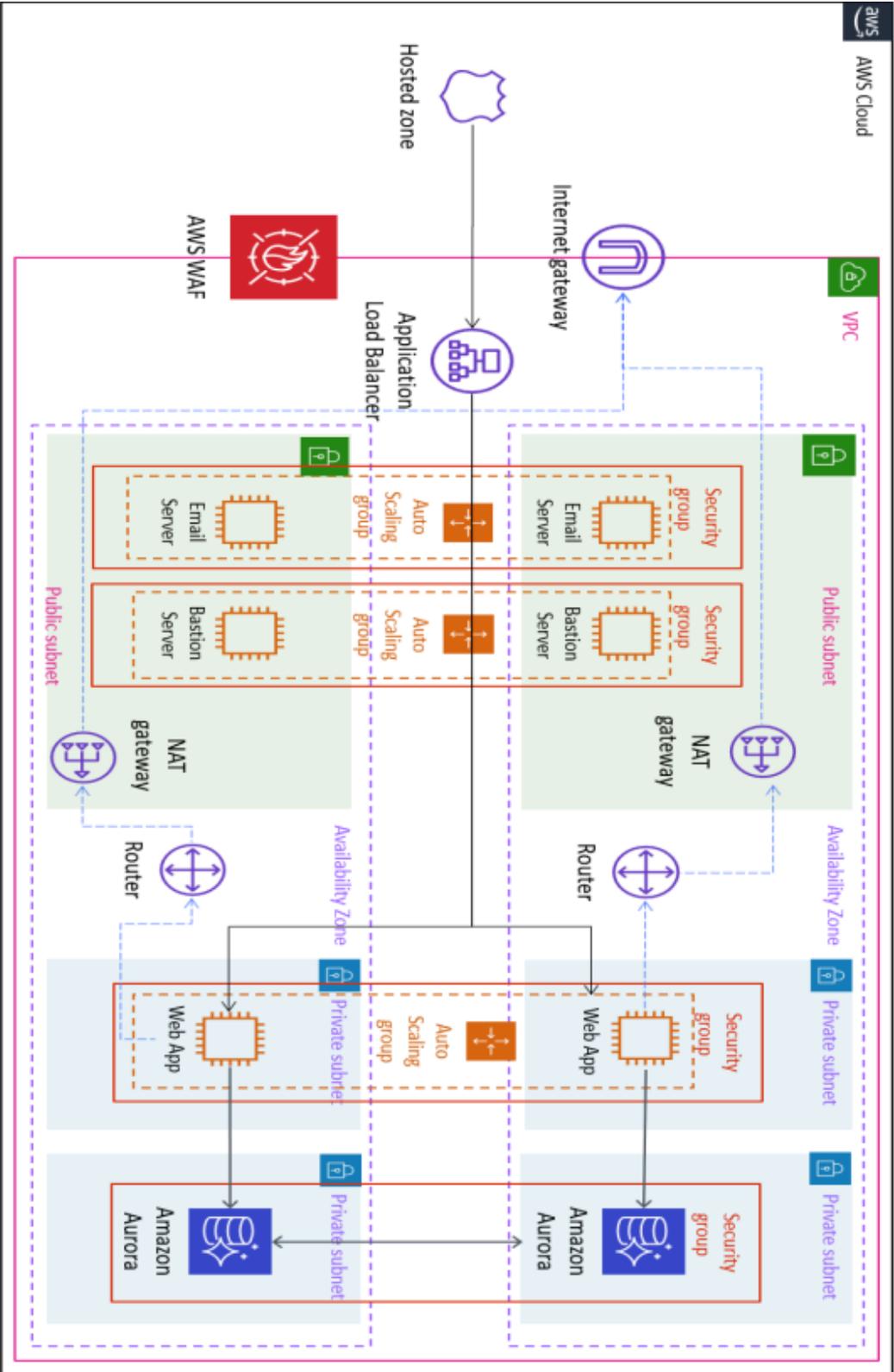


The final product to the customer was a highly scalable and automated architecture, where through the use of CloudFormation the whole architecture for a single event is created in a few minutes(IaC) avoiding delays and manual mistakes that were made in the past besides some benefits were obtained like the capacity to handle multiple events at the same time without affecting the application performance providing a good experience to the end user. In addition, a pipeline CI/CD for deployments was created so then Cosoft has total control for the creation of its own infrastructure.



Amazon Aurora is used to provide speed and availability to the customer. The MySQL Compatible Edition of Aurora offers up to 5x the performance of MySQL and enables applications and tools to perform better.

# SaaS Solution Diagram



## Next Steps



Now that the application was migrated to the cloud, it's time to start taking advantage of the tools AWS and other cloud vendors offer to optimize the applications. AWS has five pillars of a well-architected framework: security, reliability, performance efficiency, cost optimization, and operational excellence. As part of the migration, the applications will have been properly configured, patterned after the reference implementation architectures, standards, and conventions following AWS best practices.

### Superior Performance

This infrastructure provides a fast, resilient and high availability environment for the application.

### Low TCO

Save money by replacing physical hardware with expensive license fees, with AWS you pay for what you use.

### Fully Managed

With fully managed resource provisioning, maintenance and backup, you no longer must worry.

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## About Nova



Nova is an AWS Advanced Tier Services Partner, a certified MuleSoft® System Integrator Partner, a Salesforce Commerce Cloud Consulting Partner, and a member of the Datadog Partner Network. Our professionals have over 20 years of experience delivering complex technical solutions worldwide. We offer solutions in migration, DevOps, cloud native development, cloud solution architecture, security and compliance, and managed services. The company has achieved AWS competencies in retail, migration, and DevOps. We work relentlessly on establishing and maintaining trust with our clients and all business partners for successful long-term relationships.

Focusing on companies "born in the cloud" or wishing to migrate to the cloud, Nova enables them to leverage the advantages of having a cloud-native infrastructure. Reach out to us today. Schedule a consultation to discuss whether Serverless Computing is the right solution for your organization.