Telefónica Tech

Apps Modernization on AWS - PPSS

What is a monolithic application?

A monolithic application is developed in **complete isolation** to minimize dependencies with other applications and systems and combines these **dependencies** and necessary libraries to provide all the desired functionality.

The result is usually a very large application in **size and lines of code**, with one, several or many functional flows that show a high complexity in the **sequence of actions** needed to complete them.

What does it mean to modernize a monolithic application?

Division into **more manageable functional** units for better maintenance and evolution.

Transitioning to **microservices-based approaches** to promote agile, distributed and loosely coupled architectures.

Moving to a container environment to improve **performance and scalability.**

Modernization strategies and how to apply them

WHAT IS? STRATEGIES

What is a container-based application?

- A container-based application is self-contained and ready for rapid deployment with all its dependencies packaged.
- The container architecture simplifies orchestration, provisioning, and maintenance, ensuring efficient performance and scalability.
- Achieving: improvements in the software development cycle, automating tasks for production deployment and improving scalability and resilience.

Container migration strategy

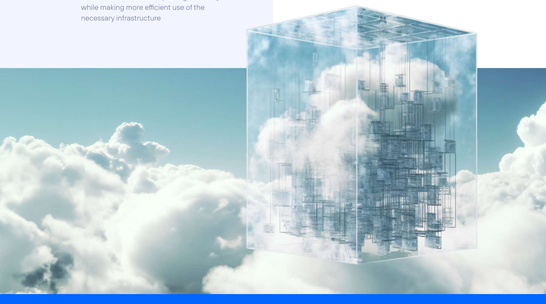
- Preparing your application for containerized deployment without modifying your code.
- Creating container environments in the Amazon cloud with IaC and CI/CD scripts.
- Ensuring security, observability, and scalability of applications, improving their availability and portability.

What is a microservices-based application?

- Microservices are independent components that communicate through APIs, creating a loosely coupled architecture.
- Their autonomy allows maintenance by specific teams, driving continuous delivery and independent development.
- Microservices-based applications are easy to maintain and scale, improving resiliency while making more efficient use of the necessary infrastructure

Microservices transformation strategy

- Detailed analysis of resources, source code, and dependencies.
- Implementation of the Strangler Fig pattern for a gradual evolution.
- Progressive decomposition of the application into independent functionalities.



Main advantages of modernization using containers

28%

INCREASED PROFITS

Thanks to the increased speed of deployment of new services.

13%

INCREASE IN RELEASES THAT MEET THE LAUNCH DATE

Having lightweight containers with more secure and reliable packaged solutions reduces the number of errors.

23%

IMPROVEMENTS IN THE USE OF COMPUTING RESOURCES

Increased resource management efficiency through the use of orchestration tools and integration with a wide variety of services and functionalities.

40%

REDUCTION IN UNSCHEDULED DOWNTIME

Deploying new functionality through the use of containers increases granularity and the creation of more stable products.

Main advantages of modernization through the use of microservices and serverless architectures

25%

REDUCTION IN THE CYCLE OF CREATION OF NEW FUNCTIONALITIES

By eliminating the need for administrative tasks related to server deployment and configuration, the focus on functionality development increases.

41%

INCREASE IN THE FREQUENCY OF DEPLOYMENTS

Serverless technologies allow the development of functionalities in a more agile, efficient, and faster way.

39%

REDUCED INFRASTRUCTURE COSTS

Inherent in the use of serverless architectures that leverage ppu models that avoid infra provisioning.

14%

REDUCTION IN SECURITY INCIDENT RESOLUTION TIME

By eliminating server configuration tasks and vulnerabilities associated with human factors.

WHY TELEFÓNICA TECH?

Telefónica Tech is a leader in the integration of next generation systems and technologies for digital transformation. We put the most advanced technologies in Cyber Security, Cloud, IoT, Big Data, Artificial Intelligence and Blockchain at the service of companies, organisations and public administrations to make their processes and businesses more efficient, sustainable and resilient.

We are the digital business unit of Telefónica, a global company that has been contributing to the development of industry, the economy and society for 100 years.

Let's continue working together to transform the world.