AWS vs GCP
for serverless applications

How does scalability affect the mediatech industry?

NEONCUBE

Introduction

How does scalability affect the mediatech industry?

The mediatech industry is grappling with the challenges of massive data volumes, user demands for transmission quality and the need to adapt quickly to changing trends. Serverless infrastructure, such as AWS Lambda and GCP Cloud Functions, eliminates the need for server management, allowing companies to focus on scalability, innovation and ensuring application stability even during heavy loads. Below, we look at which solution is worth choosing.

NEONCUBE

AWS Lambda – scalability in practice

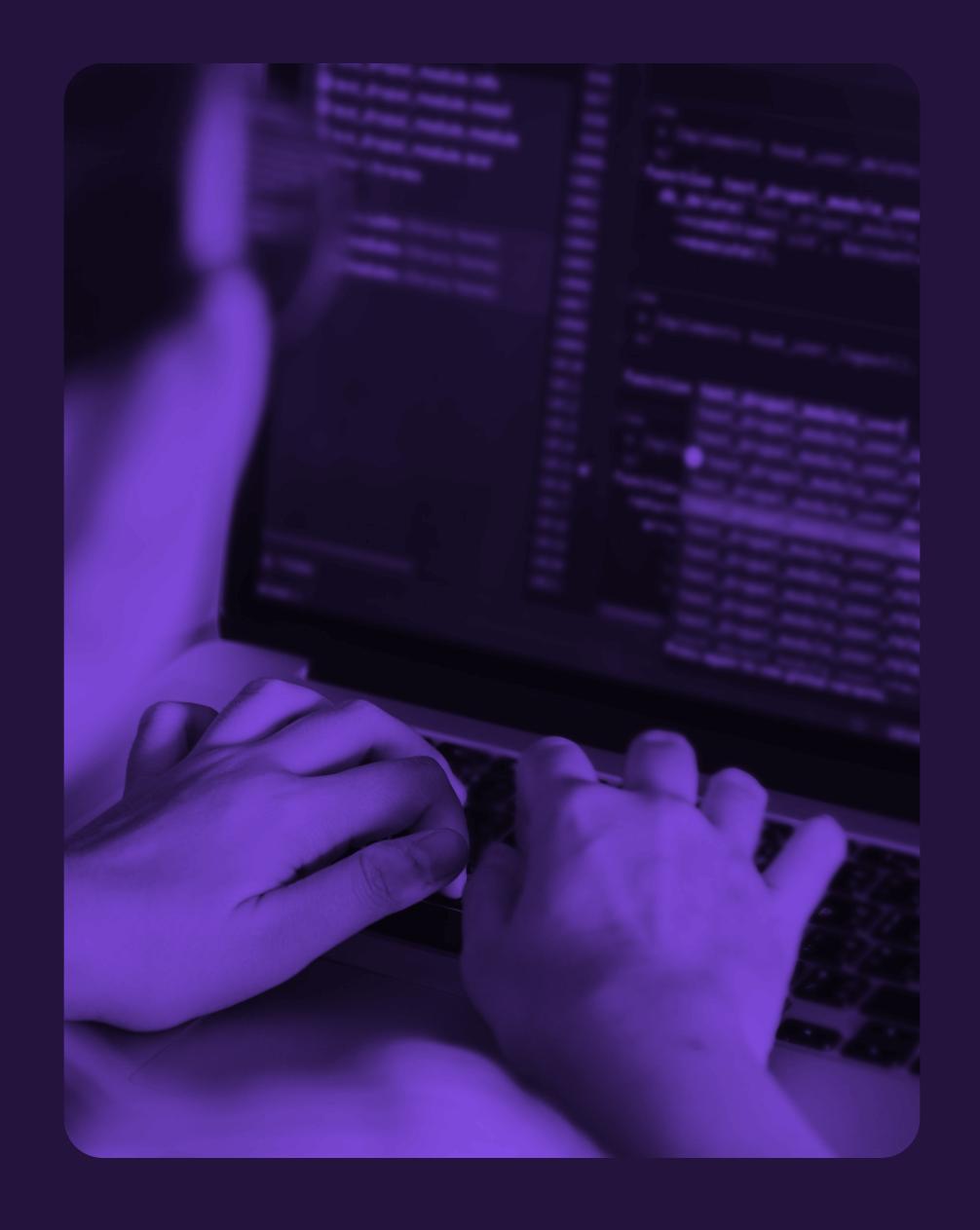## Why is AWS Lambda the best solution for mediatech?

AWS Lambda offers advanced features that support the mediatech industry with processes such as video streaming, audience data analysis and automation of production tasks:

Higher limits: support for up to 10 GB of memory and 15 minutes of function time.

Advanced monitoring: the CloudWatch tools enable ongoing tracking of system performance.

Support for Edge Computing: Lambda@Edge minimises streaming latency for a better user experience.

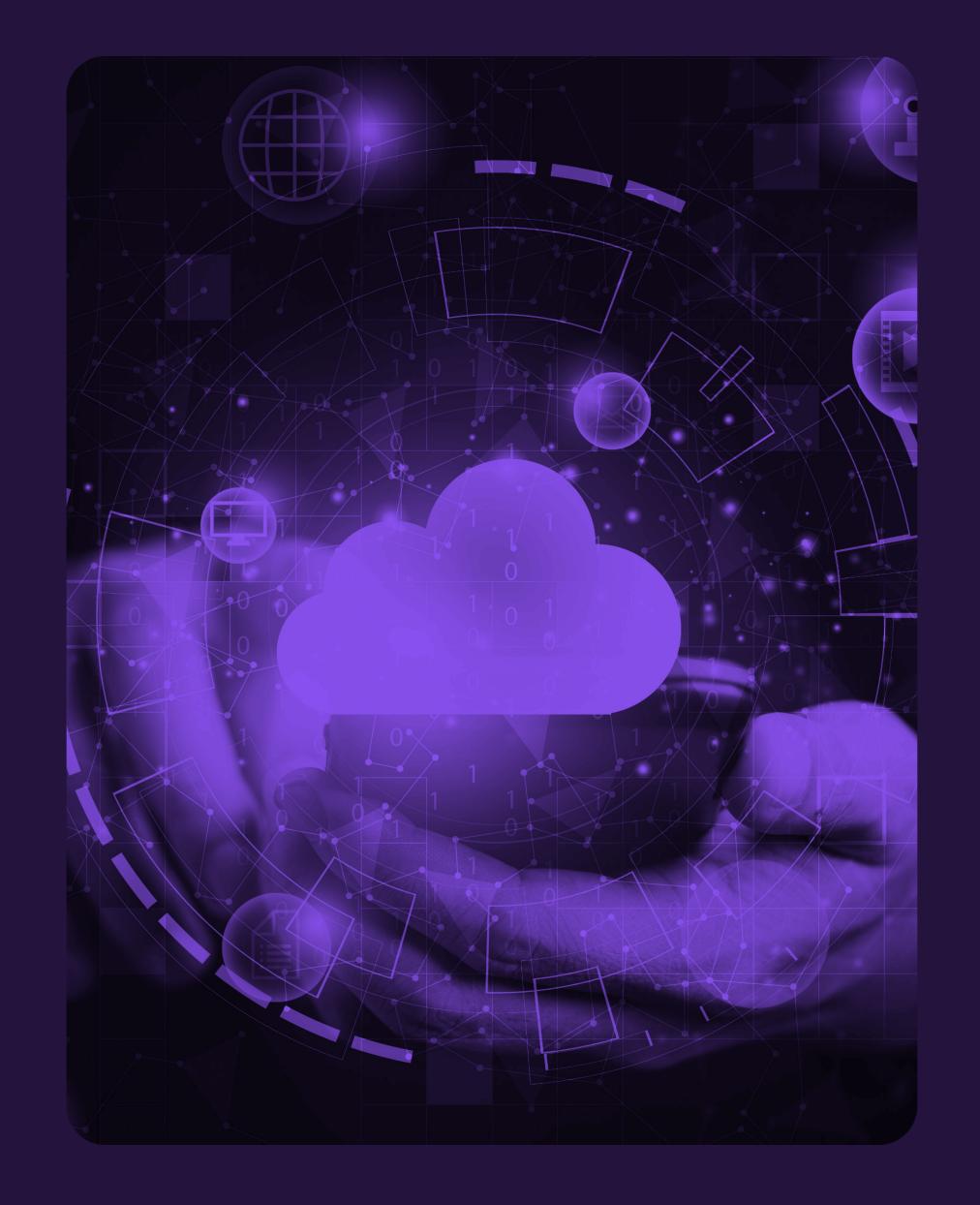**Cost-effectiveness:** 1 million free requests per month reduces operating costs.

NEONCUBE

GCP Cloud Functions – simplicity and integration into the Google ecosystem

When might GCP Cloud Functions be the right choice for mediatech?

- Integration with Google services: collaboration with BigQuery enables analysis of large data sets, and Cloud Storage supports storage of media libraries.

- Simplicity of implementation: intuitive CLI tools allow you to get started quickly.

- Lower costs for smaller projects: GCP Cloud Functions will work well for applications with predictable workloads.

NEONCUBE

Who benefits from the implementation of AWS Lambda and GCP Cloud Functions?

Media companies

Gain from reduced operating costs and automation of processes such as video transcoding.

Developers

Have access to advanced monitoring tools for faster problem resolution.

End users

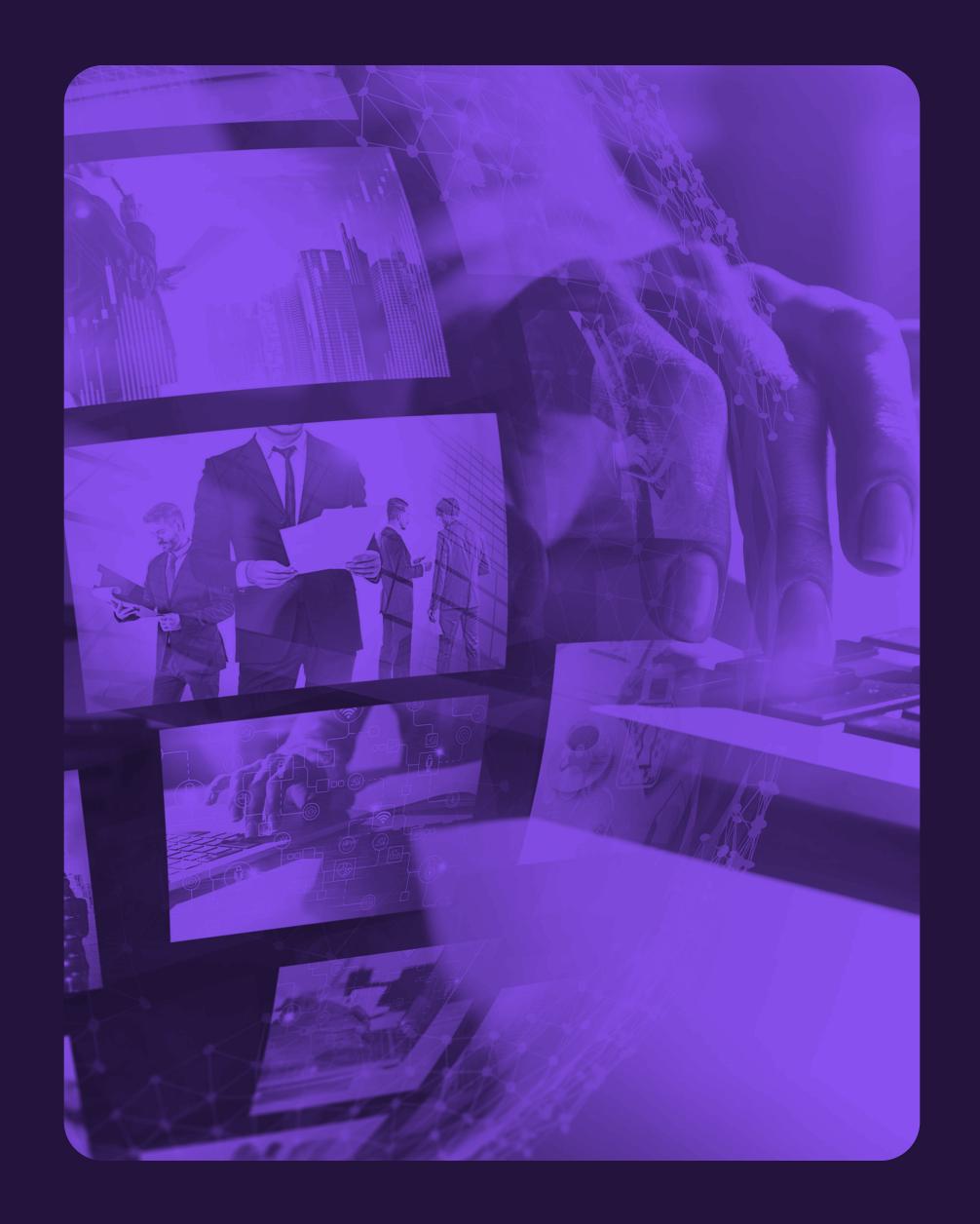Receive a better experience thanks to application stability, minimal latency and transmission quality.

NEONCUBE

Problems we *solve*

What key challenges of the mediatech industry do AWS Lambda and GCP Cloud Functions address?

- Reduction of operating costs through automatic scaling

- Latency issues with Edge Computing support (AWS Lambda)

- Eliminating the complexity of server management, allowing technical teams to focus on innovation

- Ability to quickly implement new features and updates, crucial in a mediatech environment
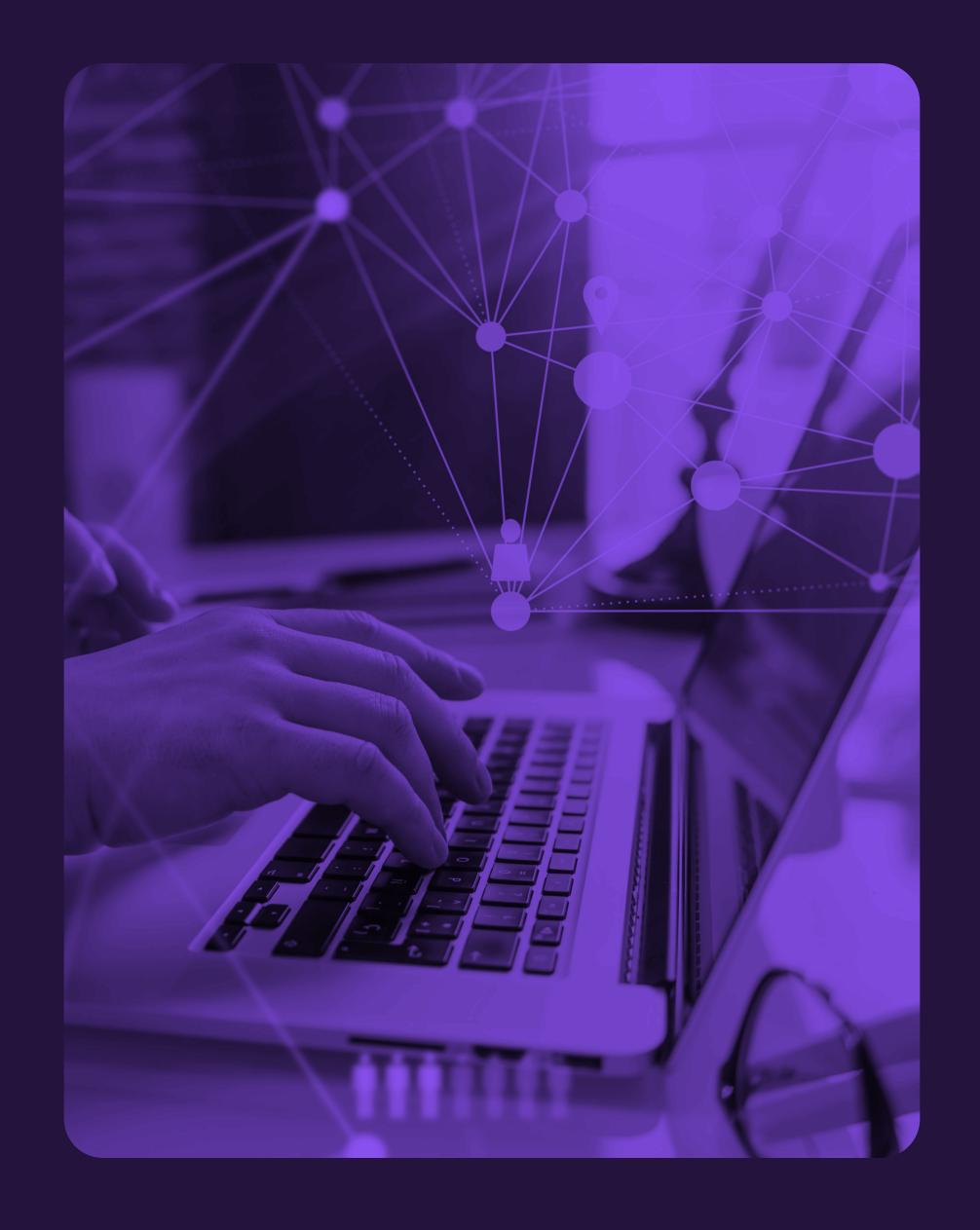
NEONCUBE

Opportunities we seize

Scalability: AWS Lambda supports large workloads and automatically adapts resources to users' needs.

Design flexibility: integration with API Gateway, DynamoDB and S3 allows complex media systems to be built.

Global reach: Lambda@Edge enables transmission close to the end user, improving the quality of streaming services.

Cost optimisation: serverless applications allow for efficient cost management

NEONCUBE

The main problem

How do you choose the solution that best supports application development and optimises operational costs and ensures application stability and flexibility, while reducing costs and simplifying infrastructure management?

NEONCUBE

Idea

AWS Lambda as a key solution for complex media systems

- Automatic scaling of applications, especially during busy periods (e.g. film premieres)
- Reduction of transmission delays thanks to Lambda@Edge
- Integration with AWS tools such as CloudFront and S3, ensuring flexibility and reliability of media systems

December 2024

NEONCUBE

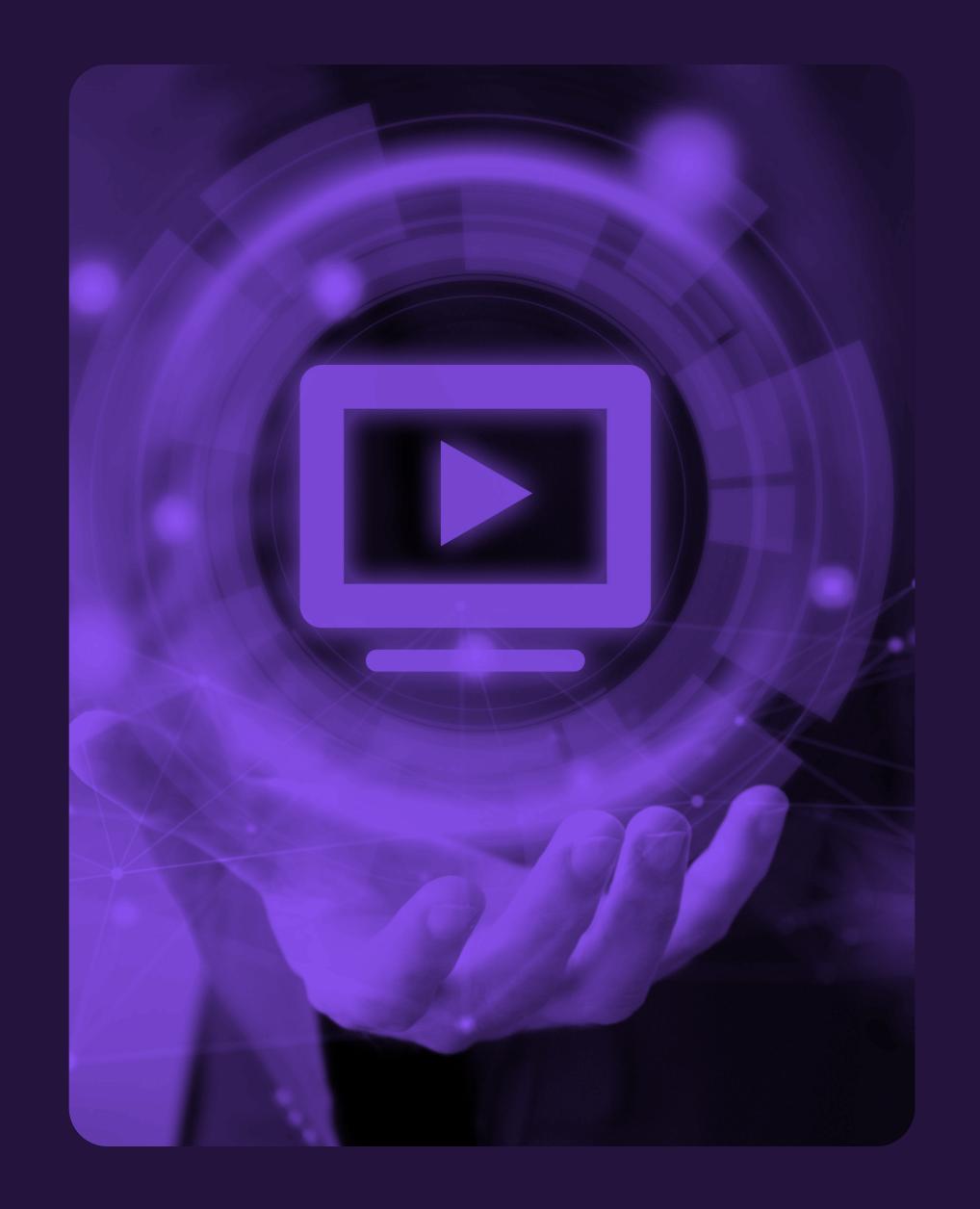# The AWS Lambda deployment process

Business needs analysis: identification of key media application requirements, such as data volume or number of users.

System design: using the Gateway API, DynamoDB and S3 to create a dynamic media system.

Monitoring: ongoing performance tracking thanks to CloudWatch.

Testing and optimisation: simulating heavy traffic with Locust and adapting the system to the loads.

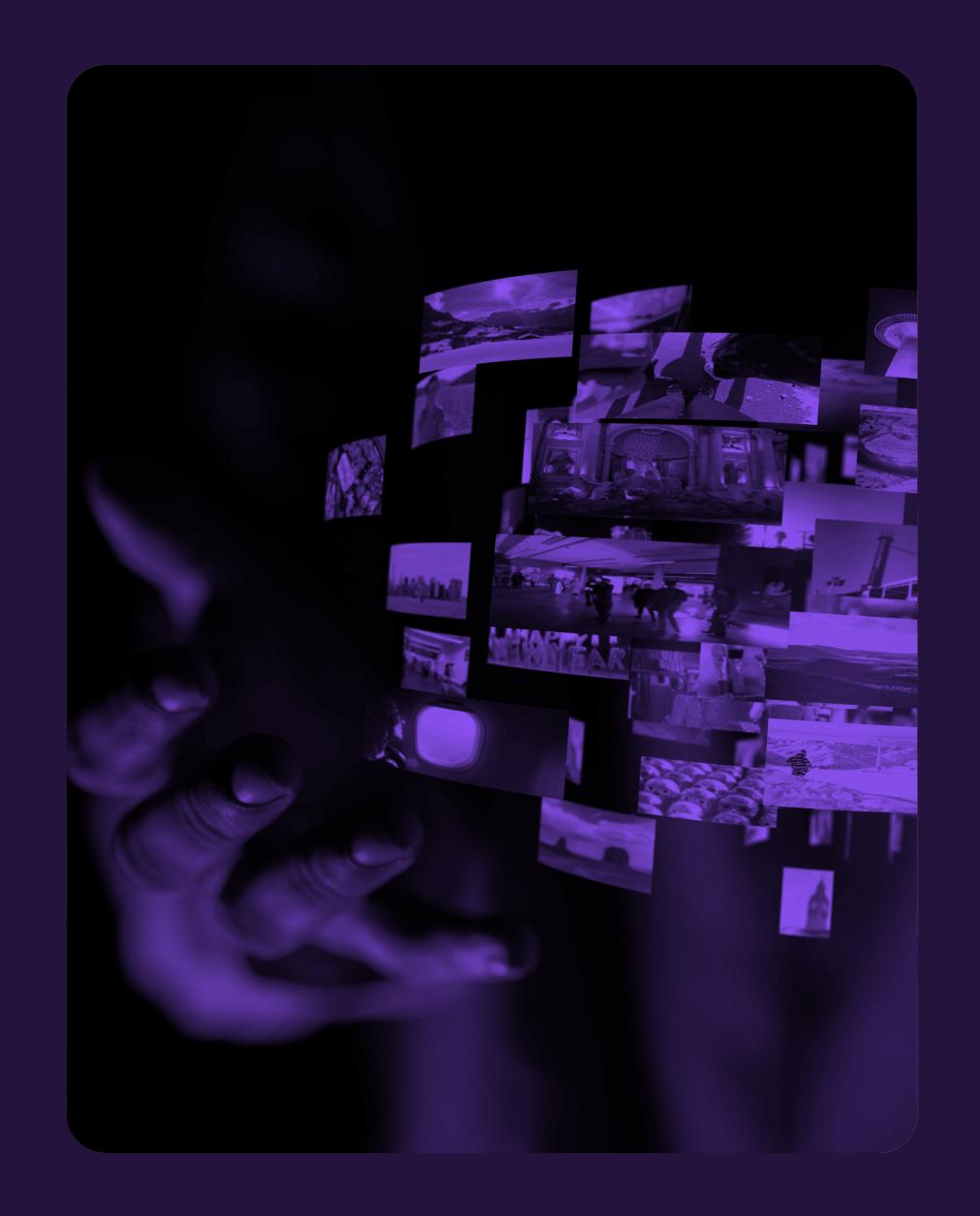**Automation:** infrastructure management using AWS CloudFormation.

NEONCUBE

Effects of implementation and return on investment

AWS Lambda:

- Increase in scalability by 200%

- Reduction in operating costs by 25%

- Reduction in time to implement new features by 30%

GCP Cloud Functions:

- Easy integration into the Google ecosystem

- Cost optimisation for applications with predictable traffic

NEONCUBE

Conclusions

Why is AWS Lambda the best choice for the mediatech industry?
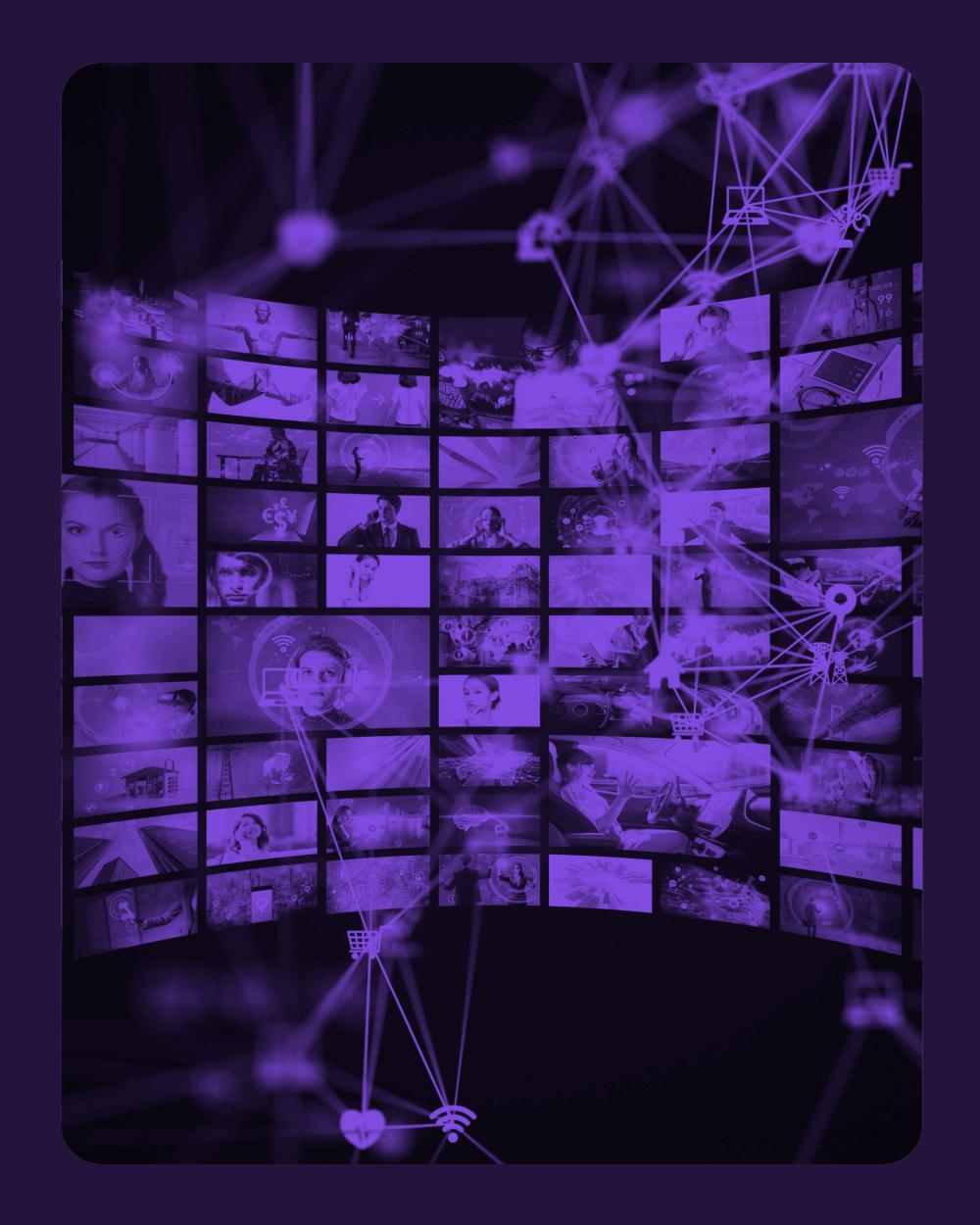
Higher scalability limits and advanced monitoring functions

Support for global users through Lambda@Edge

Better support for advanced applications such as video streaming and transcoding

When to choose GCP Cloud Functions?

When a project requires integration with Google services or predictable traffic.

December 2024

NEONCUBE

The Neoncube Team

Want to learn more about implementing AWS Lambda?

Get in touch with us!

Jacek Nosal

jacek@neoncu.be

+48 693 293 324

Michał Smoliński

michal@neoncu.be

NEONCUBE