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Company Overview

The Founders

Quortex was founded in 2018 by 4 senior broadcast industry experts. With over 60 years of combined experience within the video industry, having filed more than 100 patents in this area. The company is headquartered in Rennes, with sales offices in Paris and London as well as R&D offices in Nantes and currently has 25 employees.

The Founders created Quortex to take Over The Top (OTT) video delivery to the next level, considering that this industry is still in its infancy: while streaming became the de-facto standard for Video on Demand (VoD) technological limitations prevent Live content from being delivered on a massive scale and in a profitable way.

QUORTEX CORPORATE



Company DNA:

Innovation, Quality,
Genuine

Company Stack:

A.I., Video
Compression,
Kubernetes, Python,
Cloud-Native, OTT,
Just-In-Time
Everything



25 People

Backed by    

www.quortex.io

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Figure 1: The Quortex Founders

The Vision

Quortex truly changes the paradigm of content delivery by introducing "Just in Time Everything" (JiTE) a technology that builds the workflow based from the user demand, not from the content origination.

Our solution combines this patented architectural breakthrough with the latest advances in Artificial Intelligence. It makes our software fully adaptive to unpredictable network, infrastructure and audience dynamics.

Our Technology

Just in Time Everything (JiTE)

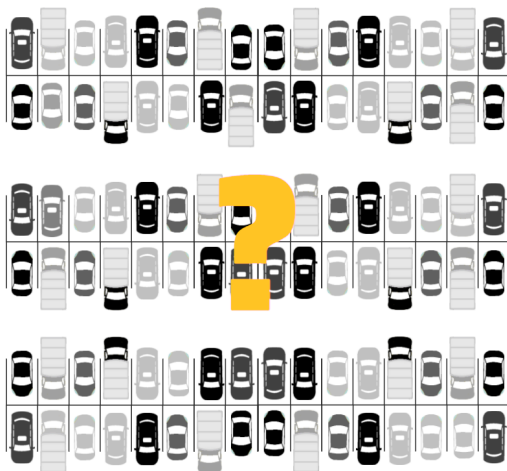
Quortex was born from a simple finding: OTT is still delivered today with a traditional architecture, inherited from DTH/DTT/Cable systems.

This architecture is in "PUSH" mode: whereby the processing workflow starts from the content origination and goes through every processing function in push mode straight through to the end user. Although this made perfect sense for architecture where the transport link had a fixed, static bandwidth, such an architecture is not relevant for OTT.

By design, the Quortex workflow offers a "PULL" model using JiTE: whereby the end user requests streams from the network, rather than passively being "pushed" on a continuous stream.

The ethos of "Just in Time" is also used in many other industries, primarily in manufacturing, whereby various components of a final product are delivered "Just in Time" for assembly, thus ensuring there is no wasted stock, storage floor space used and ensuring assembly is at its peak performance. The same principles are provided by Quortex in CPU usage, network bandwidth and video quality.

We apply **Just-In-Time Everything** to Live Streaming



- Produce **cars** only when an **order** is received
- Adjust **raw material** consumptions to the demand
- Make sure the produced **cars** meet the customer expectations
- No wasted **stocks** and useless storage



Better customer satisfaction, reduced cost

Although an extension of “Just-In-Time Packaging”, our system goes much further and extends the concept to all the functions of a traditional headend. Based on CDN technologies, our solution is a natural fit for leveraging the CPU resources that are now populating the Content Delivery Network, down to the network edge.

Truly Cloud Native

At Quortex we have designed and built our Cloud Native infrastructure from the ground up with only true cloud principles at the heart of everything we have created and do, ensuring that we dispel the myth that delivering video content in the cloud is both a complex and costly solution.

Rather than being a static, monolithic software, our live workflow is a user-centric combination of stateless web services that process segments as independent VOD assets. These web services are only active when processing a user request for a given segment.

We provide this workflow as a technology, not as a managed service. This allows the ability to white label, integrate and fully control your streaming service and adjusts its architecture to complement your existing suite of services. We have a dedicated team of DevOps engineers to support you in all these changes, all along the life cycle of the product.

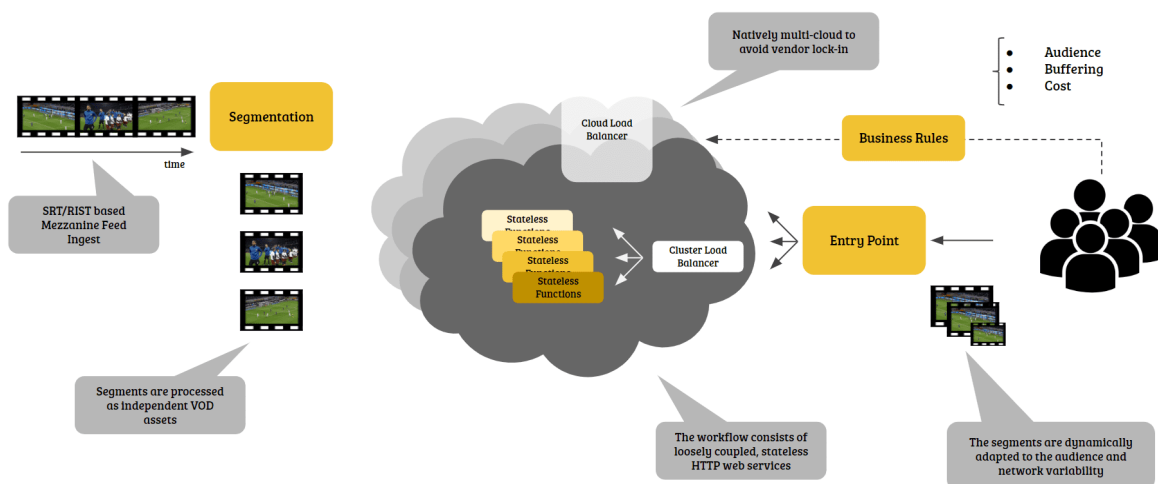


Figure 2: Quortex OTT solution at a glance

Spot Instances

Another key element of the Quortex solution is the fact that we run our technology using Spot Instances. This is key to providing a cost-effective cloud native solution as the Spots enable the user to save up to 80% of the cloud infrastructure compute costs.

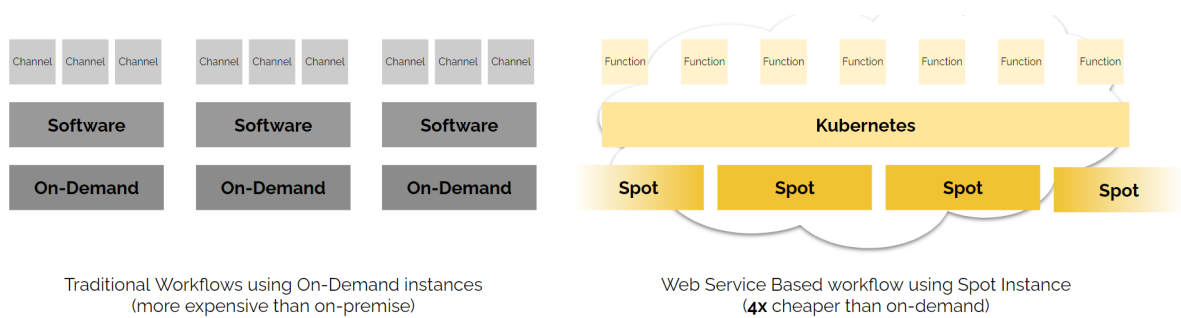


Figure 3: 80% savings with Spot Instances Usage

Spot Instances are unused instances that are available for much less than the typical On Demand services due to spots being Pre-emptible, meaning no availability guarantees. However, when using our technology, should the spot that is being used to deliver the content become unavailable, then the system moves over to the next available spot and so on without any interruption or degradation to the video delivery. In the very unlikely event there are no available spot instances across any cloud provider then the solution will kick over to an on-demand instance until such time that a spot again becomes available and the system then reverts back automatically.

Working with Hybrid Architectures

Deploying cloud solutions on hybrid environments (either multi-cloud or mixed private/public cloud) is another unique feature of our solution. Our system does not have any adherence with the underlying hardware, allowing our functions to be deployed on any cloud, in any location, without any centralized management system.

A typical use case for that is the ability to size your on-premise infrastructure for the average use case (leveraging the CAPEX investment in your datacenter), while the public cloud is automatically used when the usage exceeds that average capacity. The public cloud will only be used when requested, ensuring a high cost efficiency. Adding new channels, new profiles, getting a better video quality, adding processing stages or increasing the Video Quality for specific time slots are operations that can be offloaded to the public cloud in a snap.

Opex Only

Using JiTE enables the content owner to pay only for the infrastructure used when content has been requested by the viewer. Excluding a standard Quortex license cost, the content owner's cost base only increases along with its viewing figures and is charged on the number of CPU resources consumed.

Conversely, if there is no content requested, there are no CPU resources used and no costs incurred.

JiTE is a perfect fit for both live events as well as 24/7 channels where there are sharp differences between peak and off-peak viewing or when launching a Tier 2 or 3 channel and the cost of infrastructure makes it prohibitive under traditional OTT delivery methods

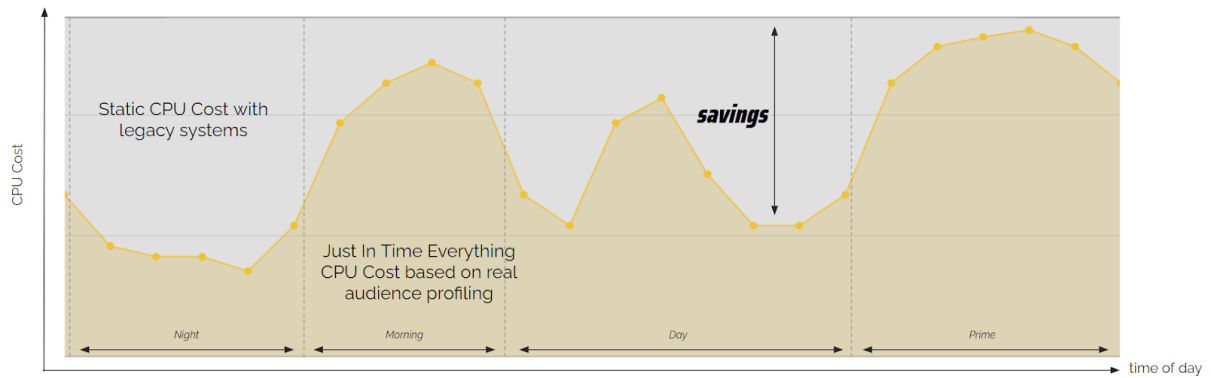


Figure 4: 50% savings with Just-In-Time

Defining Business Rules

The introduction of business rules when managing the delivery of your content is a key benefit for Quortex users. Whether defining geographical locations, encrypting content during peak hour viewing, targeted delivery to specific handsets, tablets or smart televisions or managing profiles per region, all of these attributes can be managed within the Quortex solution.

Typical use case is where a live music concert is being promoted by a specific phone handset manufacturer, Quortex’s business rules enables you to specify access to this brand of phone only within a specific region, at a chosen profile and during a specific time or duration quickly and effortlessly.