

MediaKind

Atlas On-Demand



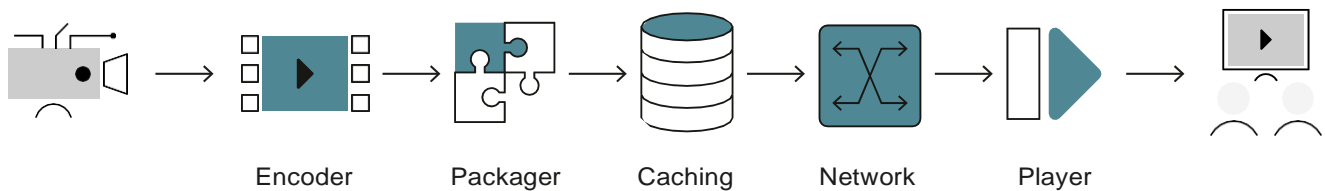
ATLAS
Consumer Delivery

Atlas On-Demand is a professional video on demand solution for the processing & delivery of video files over any network (Cable, IPTV & OTT) to any device, ensuring a premium experience



MediaKind's cutting-edge Consumer Delivery solutions embody creative thinking for today's challenging world of media delivery. Video is no longer stagnant nor immobile and no longer comes in limited flavors. Today's world of video requires bold solutions capable of ingesting any type of video feed and format, dynamically storing video when and where appropriate, doing so on a heterogeneous mix of on-prem or cloud storage, and streaming stored video on demand to a wide variety of device types, each with their own technical requirements.

Atlas On-Demand is the MediaKind solution addressing video on demand use cases within the area of Consumer Delivery. It enables the ingestion, transformation, and delivery of file-based video content. Atlas On-Demand can be deployed on a variety of public clouds due to its cloud native micro-service architecture.



Atlas On-Demand workflow

Premium on-demand streaming market challenges

With drivers such as innovation, convergence and cost rationalization, OTT streaming is increasingly becoming the right technical solution to deliver content to end users.

There has been significant growth in usage of on demand content, driven by changing consumer behavior towards more personalized experiences. This led to an increasing number of new players entering the video on demand market and created a new potential revenue source, but also provided a tough competitive landscape for these providers.

There are many challenges to provide a premium experience when leveraging this streaming delivery method.

Challenges such as **picture quality** and offering content for consumption on **multiple devices** both inside and outside of the home continue to exist for TV Service Providers either already in the streaming world or new to the market.

Individual streaming of videos results in a huge **demand for bandwidth**, and therefore **distribution costs**, which must be minimized to ensure the viability of the service.



Atlas On-Demand solution values

Single solution, multiple use cases

MediaKind's Atlas On-Demand solution delivers an end-to-end system designed to ingest, process, and deliver video files for OTT and IPTV consumption. This solution addresses the challenge to provide a high-end user experience while ensuring operational costs remain under strict control. Along with the MediaKind Prisma advertising and alternate content portfolio, it also enables new revenue streams leveraging advertising and content distribution rights capabilities.

- **Push your video quality higher** leveraging Atlas On-Demand Encoding technology to provide the highest video quality and guaranteed performance across multiple codecs (MPEG-2, H.264 & HEVC)
- **Enabling a better consumer experience** with support for a wide variety of devices by leveraging Atlas On-Demand packager with support for all major OTT formats (HLS, HSS, DASH)
- **Faster time to market** by deploying a software solution designed for cloud, using cloud native containers and orchestrators.
- **Reduce operational complexity** using a single point of entry for all services and servers' operations.
- **Optimize server footprint** with the elasticity provided by orchestration layers, and auto-scalability functions. Resources are constantly adapted to the load.

MediaKind empowers global operators to enable the most unique and immersive ways to distribute and consume video content to their subscribers and viewers.

A cloud evolution

The emergence of public clouds offers highly flexible processing resources that perfectly match VOD (Video On Demand) transcoding and delivery requirements. Seeing peaks of transcoding loads when bulks of new assets are added to the catalog is frequent. On the output side as well the delivery of packaged assets can significantly vary during a day or a week. Handling those peaks is done very nicely using auto-scaling mechanisms to scale up and down resources upon need.

Clouds with an orchestration layer provide efficient tools to react to these varying processing loads and optimize resources which reduces costs. Additionally, cloud deployment can also use object storage solutions to use the best storage class depending on the content popularity or age.

Atlas On-Demand has been designed to leverage these cloud capabilities and more, with native cloud features support.

Simplifying integration

On-Demand service workflows involve various components from content providers to end-user delivery. Atlas On-Demand offers an open REST API that eases the integration with content providers and Content Management Systems.

The automated workflow can trigger both encoding and packaging processing from a single request, which reduces any integration complexity to a minimum and provides a quick time to market for valuable content. This ensures a rapid return on investment for expensive content assets.

For every ingested asset, resources required for processing are calculated to identify the most optimal server according to the current system load. Eventually, the transcoding will be split in pieces to benefit from available resources. This results in cost efficiencies, combined with operational simplicity.



Multi-device delivery

Traditionally delivered on TV screens via set top box only, consumer demand for video on-demand content continuously increases on mobile devices such as tablets, laptops, smartphones, and the increasing use of streaming main screen devices such as smart TVs and consumer streaming boxes. Atlas On-Demand provides a unique solution to address all these devices by adapting both encoding and delivery formats.

Network pre-requisites or operational preferences may also impact technical requirements and Atlas On-Demand offers a delivery method that fits each

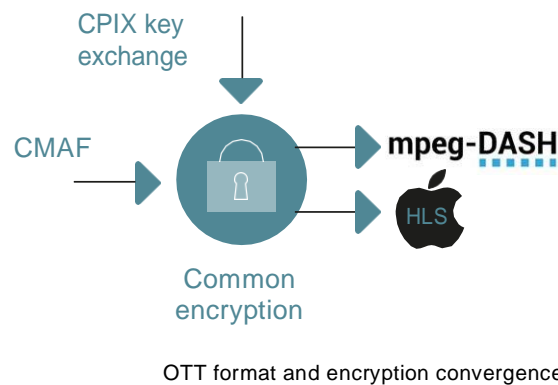
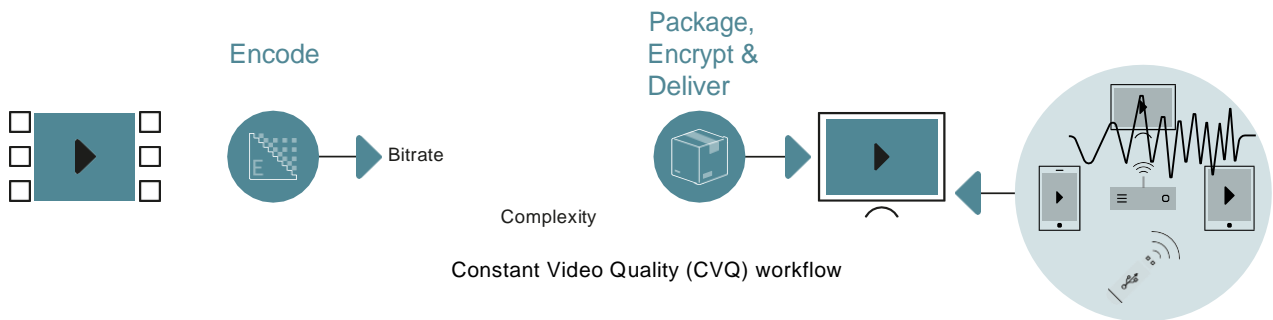
context, by a simple configuration choice which allows for a simpler and faster network integration:

- **Just-In-Time Origin**: leveraging embedded just-in-time packaging and encryption. Supporting with a wide variety formats and Digital Rights Management (DRM) integrations
- **External origin/CDN**: populating pre-packaged content publication to storage or leading Content Distribution Networks

Optimizing the cost of OTT delivery

Since OTT content is typically delivered via unicast, where every viewer receives a unique copy of the stream, Atlas On-Demand optimizes bandwidth usage to minimize distribution costs and network load. Techniques such as MediaKind's Constant Video Quality (CVQ) enable broadcast

quality whilst minimizing these costs. In addition, new developments such as converged CMAF chunks and common encryption reduce the number of content types required to support a wider range of devices, which further improves delivery efficiency.



Value to the end consumer

- Increased variety content with optimized Picture Quality regardless of resolution (SD, HD, UHD)
- Enjoying new content more rapidly by leveraging the auto-scaling and parallel encoding.
- Ensuring a rich user experience across any device, anywhere
- Supporting the latest audio and video capabilities to all devices
- Enabling accessibility through subtitle, captioning and alternative audio tracks



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