Case study

Unified Packager for 4K CMAF with CBCS encryption

Never before have there been so many demands on video streaming. Customers expect constant improvements in viewer experience, especially with so many of us recently forced to shelter in place, glued to our screens. And behind the scenes, workflows are expected to become more dynamic and processed at scale.

The streaming challenge

These expectations became starkly apparent when one of US's most profound broadcaster based in the United States began streaming in 4K HDR. Faced with so many sets of ABR technologies, the company knew that handling such large amount of content could require huge amounts of storage and a hugely complex setup.

But already using Unified Streaming products for live and VOD packaging across formats and encryption, the broadcaster was aware of the option to deploy a CMAF stream with CBCS encryption. A spokesperson for the company recalls hearing Unified Streaming CEO Dirk Griffioen call it "the holy grail" because the solution was once as elusive as it is now effective.

Unified Streaming

Solution and results

Deploying CMAF with CBCS encryption has proven to massively enhance a video streaming workflow. The solution requires only one set of video fragments to be created and stored. That means a single ingest format delivers to all devices for playout whether via MPEG-DASH or HLS.

Results include:

- ✓ Fewer workflows to support and maintain.
- ✓ Flexibility in stream format and DRM – multiple manifests for same CMAF media.
- ✓ Simplified DRM support.
- ✓ More efficient CDN storage.
- ✓ Decreased overall storage needs and costs.

The broadcaster decided to implement this solution through its incorporation in Unified Streaming's Origin. A successful launch began with Xbox. Next came Apple TV and other Apple devices, followed by Roku and other devices.

Although there was hesitancy that older devices might prove incompatible with the newest technology, logic followed that "if a device can play 4K and HDR, there's a good chance it's a premium, new device, not a legacy device," the spokesperson said. "So that was a good bar to set."

Benefits and experience

The solution enabled the company to reduce its Amazon S3 storage costs. More cost cutting came with improved CDN efficiency because fewer variations in caching translated to improved processing and thus improved turnaround time.

One blip occurred when, at first one particular American hardware brand's bottom-tier devices showed encryption artifact in some video. The broadcaster helped uncover the issue, which was related to the digital media players' chipsets and resolved through upgrading.

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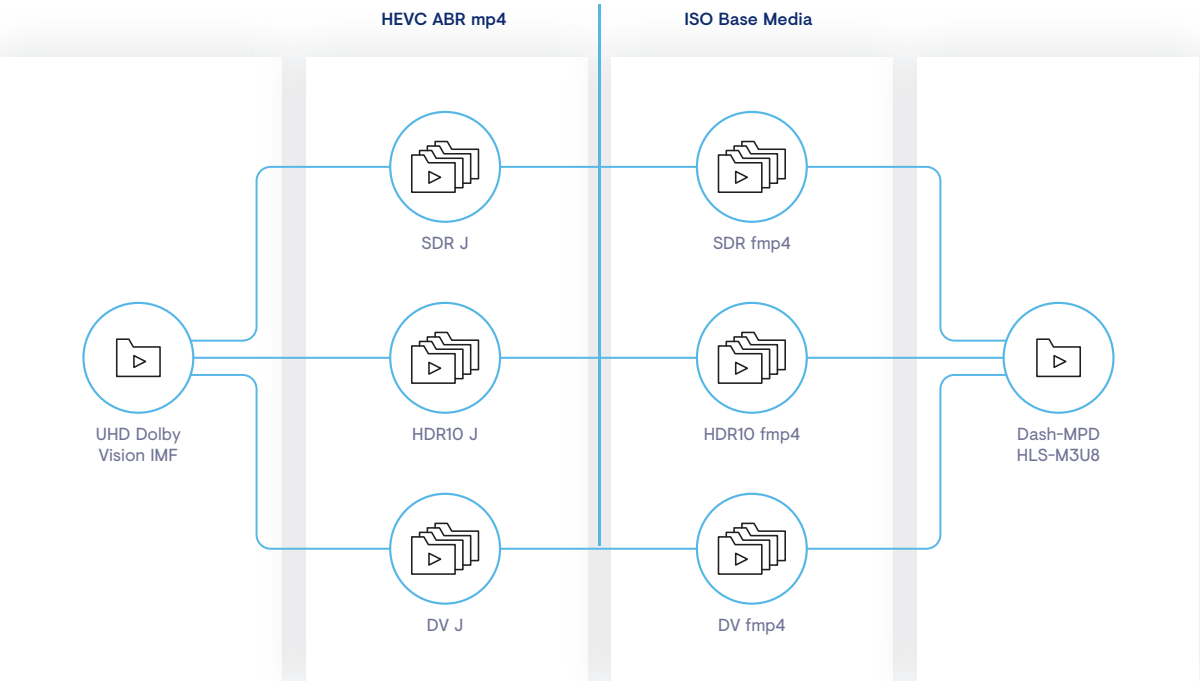
“But the good news is that the Unified Streaming packager held up,” stressed the broadcaster spokesperson. “Even early on, there wasn’t too many changes that had to be made. And an time there’s an issue, I can always get support from the team.

The support tickets folks are responsive even when it comes to development.” He added: “It’s definitely been a positive experience, which I think is made evident by the fact that we’ve been working with Unified Streaming for six years.”

Unified Streaming CMAF Packaging with CBCS encryption



About this customer

By publishing use cases, Unified Streaming relays technical, practical and/or personal experiences of customers and partners whose stories could be helpful to fellow industry members or users. In this case, the customer preferred to be unnamed.

About Unified Streaming

Unified Streaming is a forerunner in the creation of smart video streaming technologies for multiple platforms and devices. Founded in 2012 and headquartered in Amsterdam, the Netherlands, the company offers products and solutions that simplify the complexities of video delivery and achieve simply perfect streaming every time all the time.

For more information, engage with us:
www.unified-streaming.com