



Monetize and Consume

The following articles concentrate on the sharp end of the industry – the Monetize and Consume segments of the BaM Content Chain® – which ultimately generate the revenues which feed back to drive more innovation in all areas.



THE **BaM** CONTENT CHAIN®
from Creator to Consumer

Tiledmedia

The recipe for a future-proof OTT video player

Today's consumer has an insatiable hunger for video content at any time, which has created a vast streaming media ecosystem. To serve enough 'bread and games' to the masses, OTT service providers have no choice but to cover many platforms, such as iOS, Android, web, set-top boxes, TV dongles and smart TVs. This buffet of platforms has been the cause of many headaches for OTT service providers integrating a video player into their application.



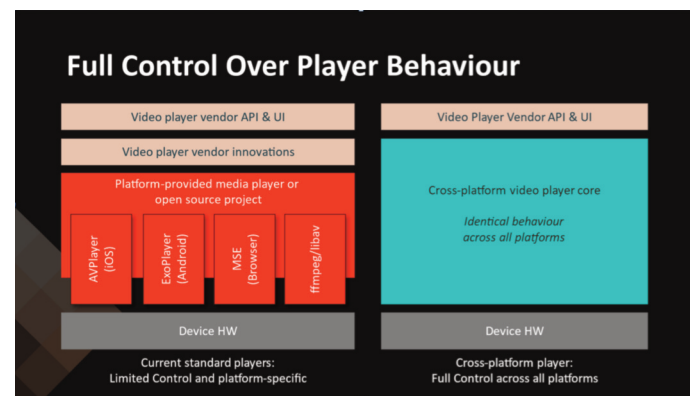
Glenn van der Meer
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Video player architects have more or less accepted that to ensure identical cross-platform functionality and aesthetics, a proverbial panful of spaghetti code must be written on top of platform-specific or open-source players. And it doesn't end there, it needs to be maintained as well. This overhead eats into the already tight margin of the OTT service provider. In addition, it makes new feature requests tough to digest. Multiview streaming, personalized and interactive ad-insertions, and seamless extensions with social media are innovations setting the new norm in the streaming industry, driving engagement, growth and new revenue. If this introduction hasn't made you too hungry yet, let's examine the best way to bake a true cross-platform and innovation-friendly video player 'cake' below.

Taking your video player stack down a level

The current standard of a cross-platform video player stack is often based on open-source or OS-specific platform video players, with a more or less unifying wrapper built around it by the video player vendor. Since these different players all behave differently and have different feature sets (think only of DRM for example), this still requires a lot of application-level code that caters for the differences across the supported platforms. As the number of features in the application increases, the lines of code needed to keep everything working expand drastically. Typical players build on AVPlayer for iOS, Exoplayer for Android, MSE for web browser etc. Video player innovations are then

developed on top of these platform native players, and on top of that you have the API and UI layer. But what if instead of 10000 lines of application-level code, you only need 20 lines to make sure your application behaves the same across platforms? This is possible with a cross-platform player developed from the ground up, with all networking, buffer management, and video playout logic being handled by this player, bypassing the platform native players. In other words, the code base of the video player sits right on top of the hardware decoder ensuring the same behavior on all platforms.



The different approaches to building a video player

Let's look at how a cross-platform player stack benefits OTT service providers both internally as well as in their product offering to viewers.

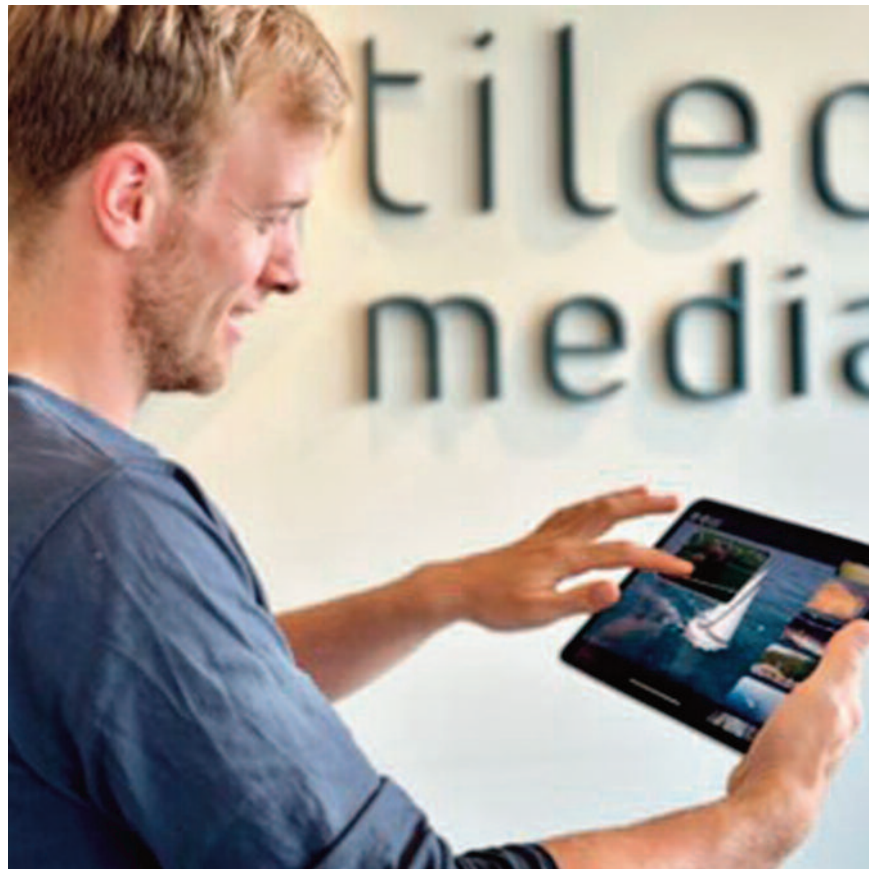


Peeking into the kitchen

Cost, time, and control are key factors that guide OTT service providers' internal structures. A cross-platform player can improve all three factors. Companies servicing multiple platforms will save precious resources by reducing large amounts of platform-specific code, speeding up time-to-live for launches and upgrades, providing consistent error reporting and analytics, and enabling a single format for encoding and packaging video (plus captioning and thumbnails!) across all their target platforms. Implementing third-party integrations (e.g. for ad systems, quality metrics, error reporting) only needs to be done once instead of per platform. Given that (live) content rights, production and distribution costs are significant in this competitive market, following a strict diet of cutting platform-induced complexity makes a lot of sense.

Feast your eyes on innovative streaming

A key element for streaming platforms is the presentation of the dish that is served to consumers. Viewing time is precious and finite, so offering a product that is appealing and looks the same across devices is vital to getting that 5-star review. Also, innovations such as multiview streaming can produce new growth and revenue, especially for live sports, but are difficult to implement across multiple platforms. Again, a player built from the ground up is the secret sauce, doing all the heavy lifting in terms of putting pixels in the right spot, assigning the right ABR level for each viewing window (PiP) on the screen, keeping all feeds in sync etc. The time-to-live for deploying a multiview product is way faster with a player that was originally designed to do this, and a nightmare when relying on platform-native players. Lastly, advertisements are an important ingredient of many business models in the industry. Integration of personalized ad insertion solutions suddenly becomes a lot easier when a cross-platform player will support them across your entire viewer base. Moreover, personalized video ads can be shown as a PiP or side-by-side in a multiview world - or in any other way an OTT service provider sees fit. This creates exciting new opportunities to show ads and improve the top line.



Multiview: hard to serve, but tastes like more when done right

An appetizer at your fingertips

If this recipe for the best video player garnered your interest, you can try out a cross-platform player yourself by downloading the Tiledmedia Player app. Check out some cool Multiview clips, letting you take control of the lay-out. In addition, we can discuss a test of your content with this player, to test the performance and see the benefit of Multiview. The Tiledmedia Player app is available on [Android](#) and [iOS](#), and for more information, visit our website at www.tiledmedia.com.

