Making Automotive Hardware Suitable for Global Streaming Providers

17th April 2024

COVESA

Agenda

1. Introduction **2 min**
2. Survey for further discussion **3 min**
3. Presentation **10 min**
4. Discussion **15 min**

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Goal

Reducing access barriers for video content providers by standardizing the technical implementation in the car.

Survey

The purpose of that survey is to identify the most important pain points when trying to bring more video apps to the automotive environment (AAOS non-GAS).

The results will be a base for further discussion.

Time to complete: **2-3 mins**

Vision

Survey

A car as a third living space

Zeekr 009

Genesis Neolun Concept

Where are we?

Survey

But still the biggest streaming platforms are missing on the larger scale

Survey

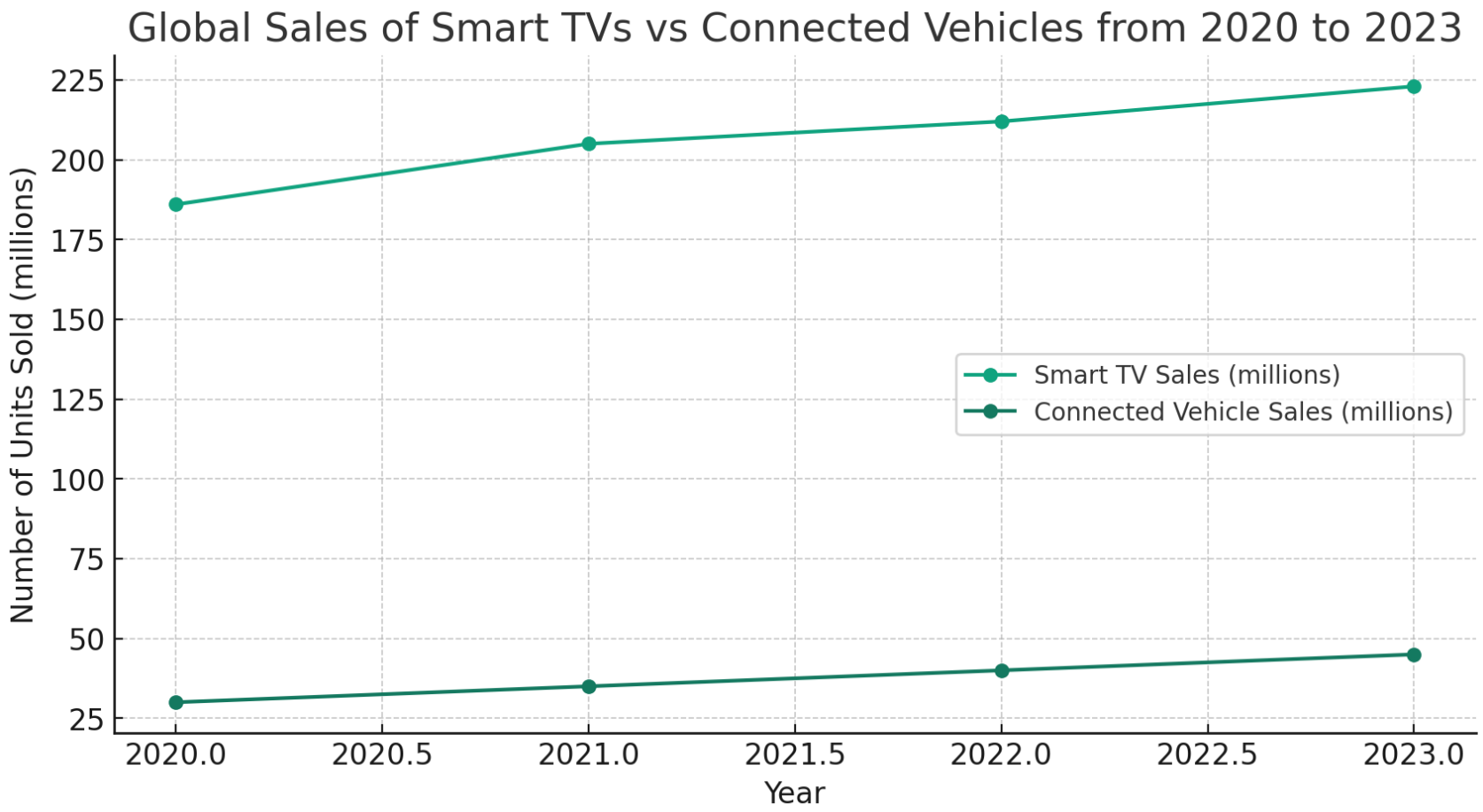
Missing for non-GAS

+ More global, regional, and local content providers

Typical answer: **Automotive doesn’t have sufficient volume to be relevant**

That’s true but …

Survey



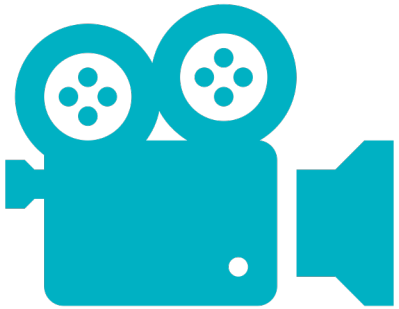
Sources:
https://smartcar.com/blog/connected-cars-worldwide/
https://www.flatpanelshd.com/news.php?subaction=showfull&id=1628582499

… but it’s still a simplified answer for more complex issues

Survey

Apart from the volume, the streaming device needs to be capable to provide great:

Survey



Quality of Experience

Make sure the playback and app experience are consistent with other platforms

Content Discoverability

Make sure the content is well presented, easy to find and consume

Upsell / Subscriptions

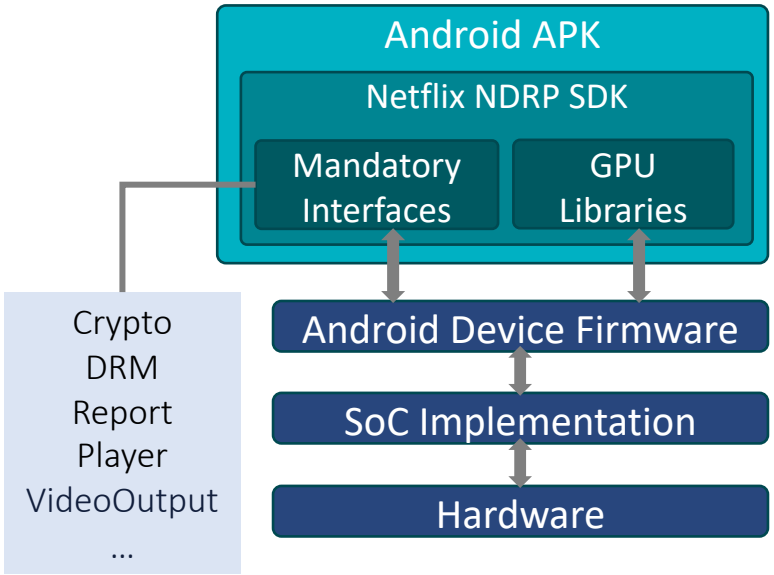
Make sure there is secure and robust infrastructure for commercial discussion

NETFLIX Guidelines & Processes

Survey

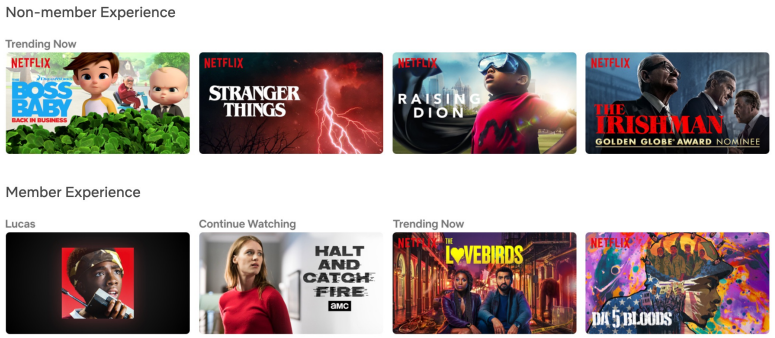
Example: Integration guidelines on Android TV or Linux device.

1. Netflix Ready Device Platform (NRDP)



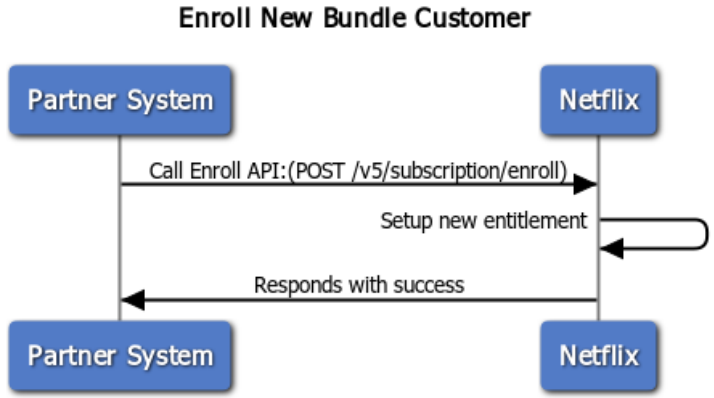
The Netflix software development kit (SDK) enables a device to be certified as **Netflix Ready**

2. Netflix Device Experience Tool (DET)



Set of APIs and metadata feeds that power both **out-of-app** and **in-app** experiences.

3. Netflix Payment APIs



The payment program specifies how to securely enable bundling or add-on capabilities.

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Key requirements to meet Global Streaming needs

How could the COVESA initiative help OEMs to get global streaming providers implemented?

1. DRM – closing the gap between GAS Systems with Widevine DRM L1 vs. non-GAS
=> defining the minimal requirements and standardizing the certification process

2. GEOLOCATION – using IP for geo-blocking streaming content is not feasible when using local IP hubs
=> standardize non-IP based location sharing in accordance with privacy laws

3. CERTIFICATION – => introducing a standardized way to certify entertainment apps for automotive readiness on non-GAS systems (streaming technologies, codecs, frame rates, …)

4. ANALYTICS – => standardization of streaming analytics data and reporting formats to easily track the quality of experience across all automotive platforms (average bitrate, error rate, …)

5. TECHNOLOGY – => defining the minimum requirements on hardware performance and software testing to become attractive for global streaming providers*

*Netflix for example requires more than 15 low-level interfaces to be implemented by the OEM. Others have similar requirements.

Survey Results

Discussion

Thank you

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