

MULTIMEDIA FRAMEWORK (MMFR)



Overview

Smart devices like mobile phones, tablets, set-top boxes, automotive head units, digital signage and consumer entertainment devices, combined with a seemingly unlimited variety of new applications - are sending the demand for enhanced multimedia experiences through the roof. The biggest challenge faced by companies is the need to exploit available hardware capabilities to the fullest and reduce the time to market cycles.

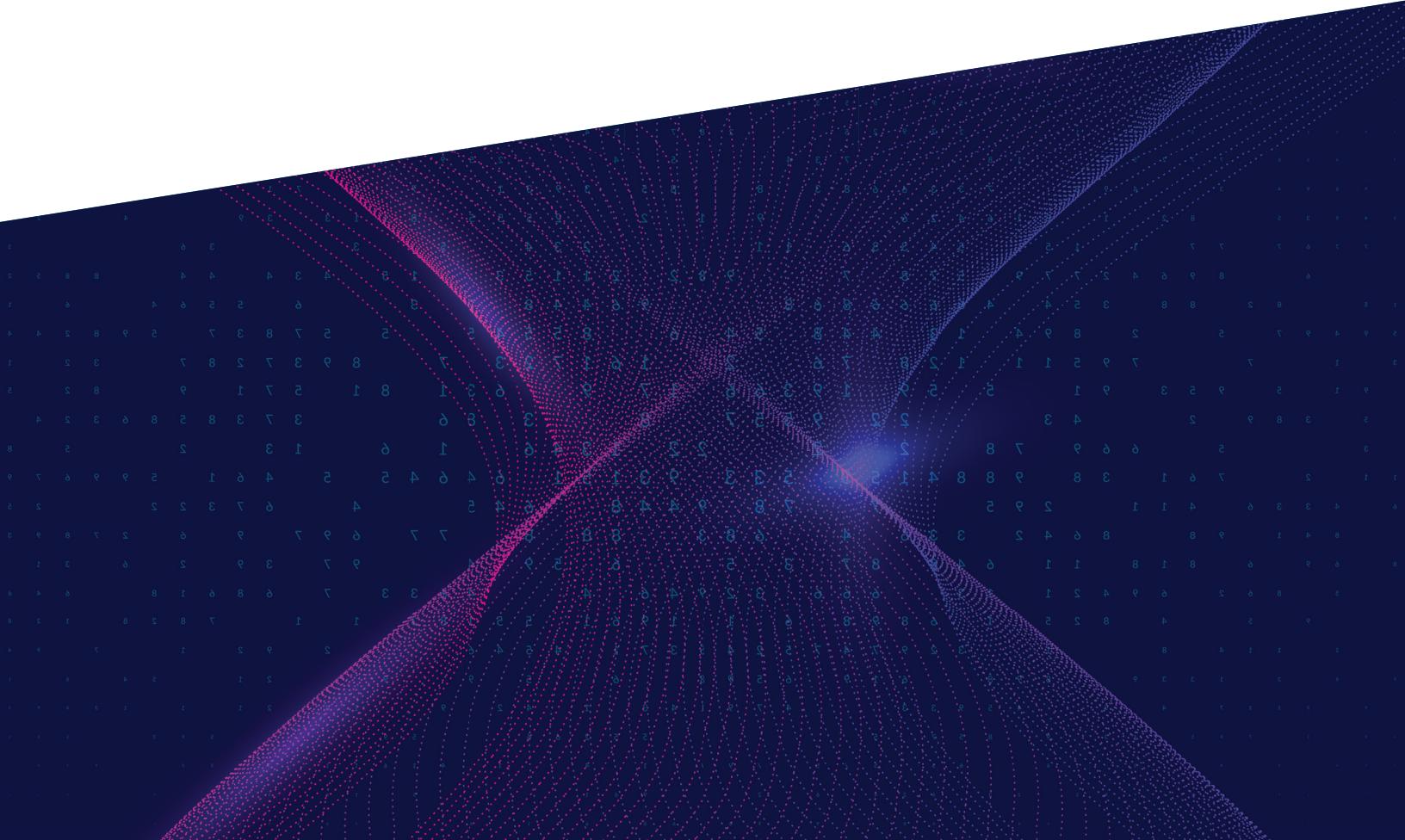
Altran helps clients address these challenges by providing Multimedia Framework (MMFR) pre-packaged with multimedia CODECs (Encoders and Decoders) and streaming stacks that enable the accelerated launch of differentiated products. We provide an extensive portfolio of highly optimized, best in class audio, speech, image, video codecs and streaming stacks which can be used for a wide range of applications, such as mobile devices, automotive, home automation, consumer electronics and infrastructure. The brochure is focused on automotive applications

Solution

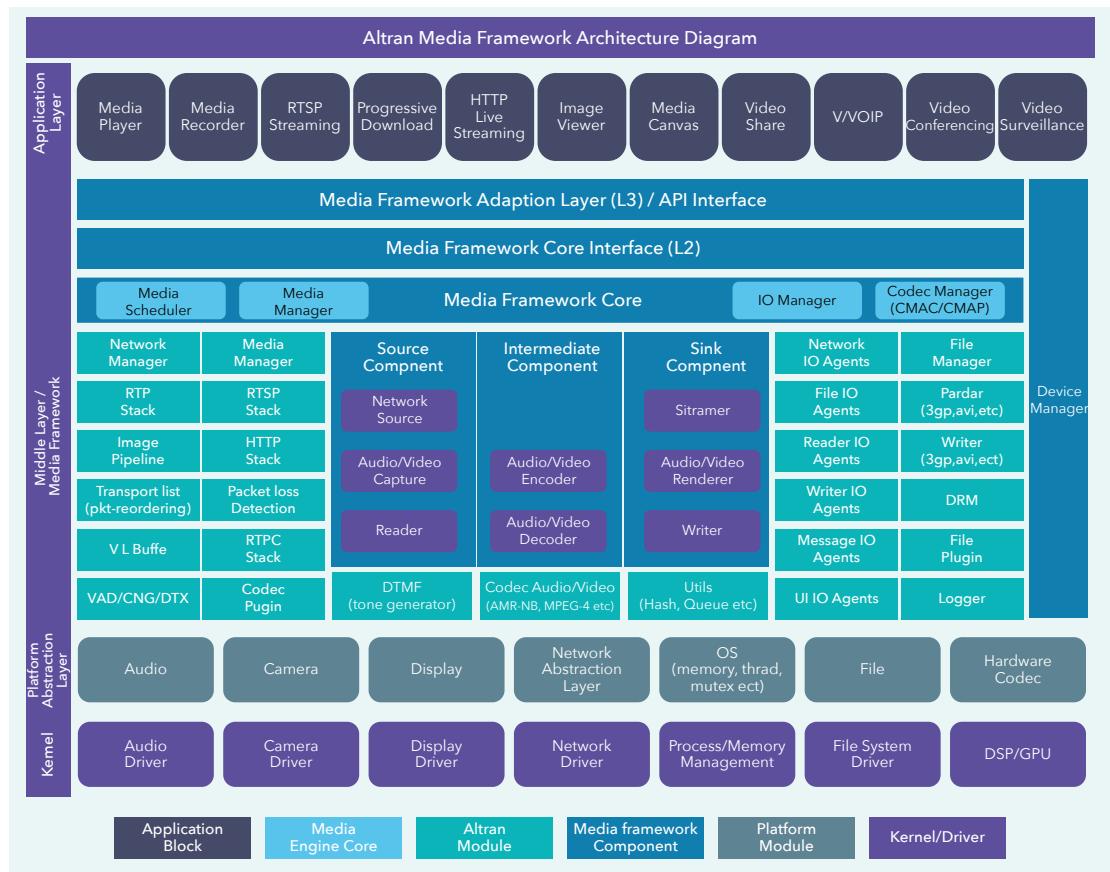
MMFR is a one stop solution for all your automotive infotainment needs and delivers next-generation immersive experiences. We offer a complete suite of solutions covering a wide range of audio and video formats, automotive platforms, OS, and content sources and devices – customized to meet your unique needs.

- Audio/Video Codecs
- Multimedia frameworks
- Streaming Stack
- File Format
- In-Vehicle Communications
- Rear Seat Entertainment solutions
- Test Framework

Multimedia Framework supports multiple traditional and emerging data transfer protocols for in-vehicle networking and communications. Specifically, timing-sensitive applications in IVI and ADAS can be implemented via the IEEE standard, AVnu Alliance compliant Ethernet Audio Video Bridging (eAVB) stack. With support for multi-camera video streams and a host of other content formats in the connected OS, real-time ADAS applications such as surround view, lane departure warning systems (LDWS), etc., can be realized in a cost effective manner.



MMFR Architecture:



Key Features

- Media framework is modular and highly customizable software architecture allows easy integration and deployment and enables cross-platform solutions to reduces costs and time to market
- Media Framework Streaming Engine™ supports a wide range of protocols and enables playback of online media streams
- Media framework player offers superior quality and low power consumption
- Optimized for a range of automotive grade processors based on ARM, x86 and DSP cores from leading vendors including TI, Renesas, Freescale, and Intel, and other proprietary SoCs
- Portable Multimedia Framework that can be used across multiple OS platforms thereby saving the porting and integration effort significantly for migrating multimedia solutions across platforms



MMFR Feature Compliance

Media Processing

- Include support for media formats like MP4, MPEG-TS, MPEG-PS & MP3 in Player Interface
- Modify player interface to add support for trick modes like pause, resume, fast-forward, fast-rewind, seek-forward, seek-backward

Audio Codec

- AAC-LC/HE-AAC-LC/eAAC-LC+ & AMR NB/WB
- Get codec list (Only Encoder/Decoder)
- Get codec attribute

Video Codec

- Support for H.264, H.265, H.263 and MPEG4-SP
- Get codec List (Only Encoder/Decoder)
- Get codec attribute

Media types supported

- Audio only
- Video only
- Audio + Video

Media Management

- Stack session management
- Transmit/receive session management
- Driver/device management
- Network interface management

Video Functionality

- Video scaling
- Video rotation
- Color conversion
- AV sync

AVB Features

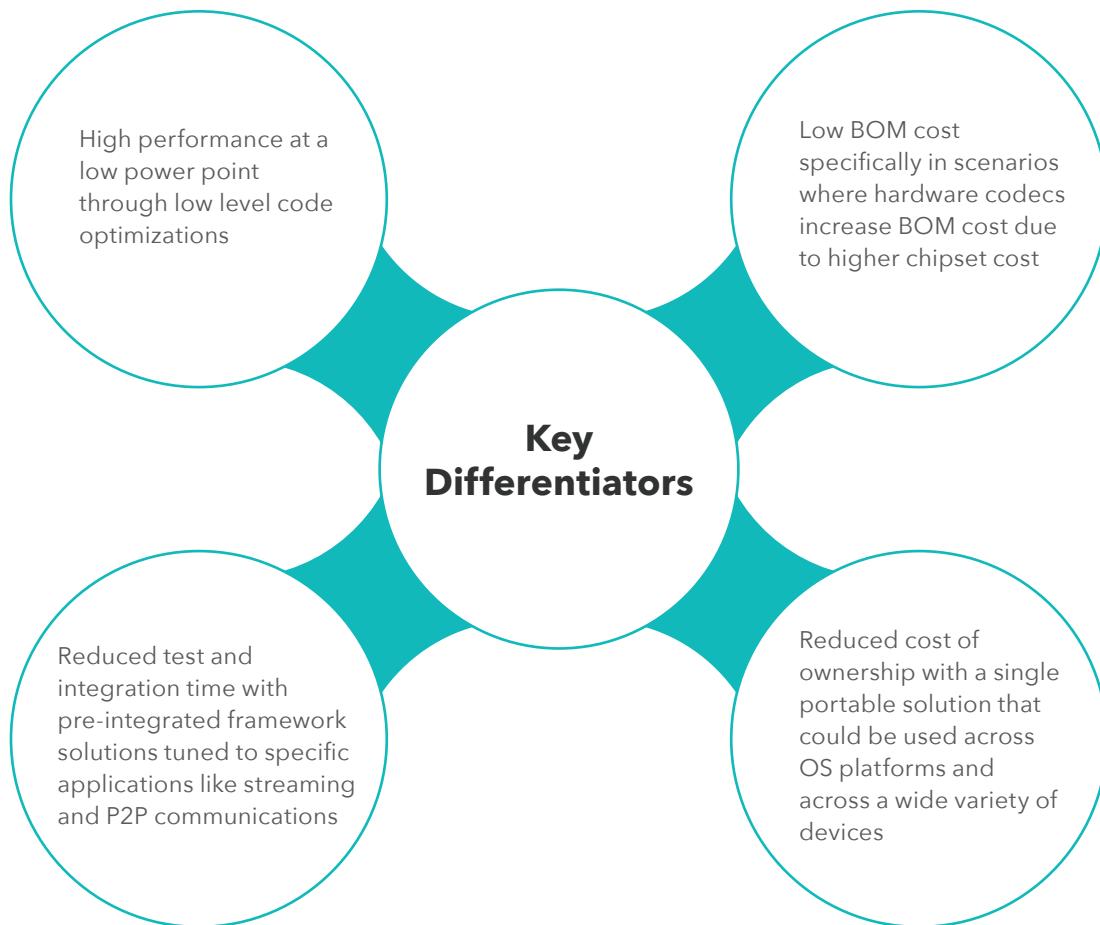
- Precision Timing (gPTP)
- Stream Reservation (SRP)
- IEEE 1722 (Media Encapsulation & Decapsulation)

Why Altran

Our software frameworks offer best in class solutions that significantly reduce the total cost of ownership and time to market. We are a trusted partner with over 25 years of experience in technology and engineering and up-to-the-minute expertise in the domain.

We also deliver unique in-car user experiences by leveraging a strong pedigree in communications (short and long range), multimedia and embedded domains, and partnering with leading automotive forums and platform providers.

With a strong culture of innovation, we offer continuous experimentation with newer technologies and collaboration with leading standards, bodies and forums, along with a global delivery model for optimized cost and timely delivery.





To know more about Altran capabilities, mail us at:
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About Altran

Altran is the world leader in engineering and R&D services. Altran offers its clients a unique value proposition to meet their transformation and innovation challenges. Altran supports its clients, from concept through industrialization, to develop the products and services of tomorrow and has been working for more than 35 years with major players in many sectors: Automotive, Aeronautics, Space, Defense & Naval, Rail, Infrastructure & Transport, Energy, Industrial & Consumer, Life Sciences, Communications, Semiconductor & Electronics, Software & Internet, Finance & Public Sector. Altran has more than 50,000 employees operating in over 30 countries.

Altran is an integral part of Capgemini, a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of €17billion.

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