



*Reduction in time to market by more than 50% and cost savings of 40%*

## Development of a Digital Audio Gateway for a Leading German Car Audio and Sound Systems Manufacturer

### Customer Profile

The customer is a leading car audio components and sound systems manufacturer based in Germany. They provide cutting edge multimedia and audio solutions to the top automotive manufacturers in Europe and around the world. Furthermore, they develop the necessary communication connectivity technology that allows sound systems and external infotainment devices such as iPods and MP3-players to communicate with one another.

### Customer Challenges

- The customer wanted to enhance its dominance in the digital audio gateway space
- They were looking to design and develop a premium and experiential audio gateway for a top 3 premium car manufacturer

### Solution

- Aricent built an automotive gateway supporting connectivity with iPod, Zune, and USB
- The solution was designed to provide media access from the above-mentioned devices through a controller on the steering
- Aricent's multimedia IPR was extensively used to accelerate development time of the solution

### Results

- The development time for the project, which would have been more than a year without Aricent IPR, was reduced to 6 months
- Aricent co-created a differentiated product along with the customer, which is presently being used in several high-end car models
- This approach, as compared to a ground-up development, resulted in a cost savings of 40%

### Why Aricent?

After an exhaustive selection process involving multiple specialist and tier 1 vendors, the customer chose Aricent to develop the desired solution.

The primary reason behind for this was Aricent's deep expertise in executing complex solutions in the multimedia infotainment space as well as in the connectivity space. Having deployed its multimedia technologies in hundreds of thousands of mobile devices, Aricent has built up significant capabilities in the areas of user interface design, embedded systems, mobile docking stations and multimedia integration. This further added credibility to Aricent's capabilities.

Additionally, the strong IPR that Aricent has built up over the last 10 years in the areas of multimedia applications, middleware and codecs ensured that the customer would be able to roll-out the product in a significantly reduced time-frame, and at a fraction of the cost that they would have incurred had they gone in for a ground-up development.

Finally, Aricent's highly efficient service capabilities, blended with CMMi level 5 quality processes ensured that the developmental and process risks were significantly reduced.

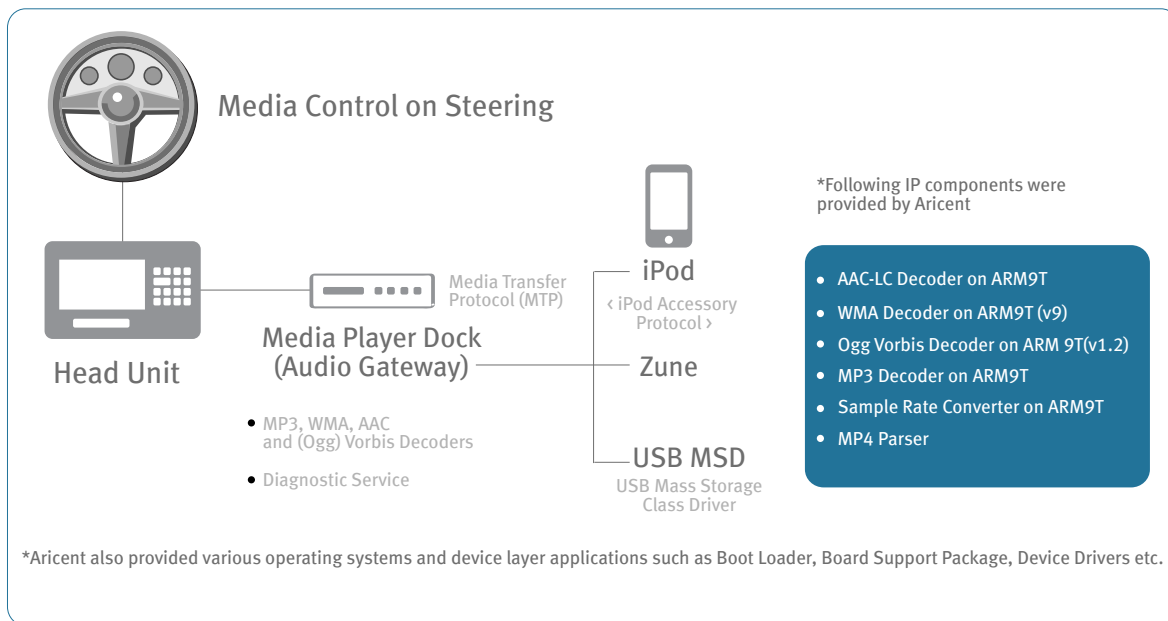
## Customer Challenges

The customer wanted to develop a premium experiential connectivity solution that would allow the end user to access multimedia content, located across various multimedia devices, from within the car. This product was to be positioned as a premium offering meant for very high-end car models, with the key objective of simplifying and reducing complexities associated with media access from these devices.

The devices that the customer wanted to support were the Apple iPod, Microsoft Zune and USB and SD memory sticks.

## Aricent Solution

Aricent worked very closely with the customer to develop the required audio gateway solution. From a staffing standpoint, Aricent was able to quickly ramp up a dedicated team of engineers with deep expertise in the required technologies, delivering outstanding results in every phase of the project. The solution architecture is depicted below:



## Results

The audio gateway solution has been deployed by the customer across the premium models of some of the top automotive manufacturers and now drives the multimedia infotainment systems in multiple premium car models worldwide.

Aricent's Multimedia IPRs helped the customer considerably reduce the time-to-market by more than 50%. The use of well tested components also ensured very high quality and reliability as expected from premium in-car infotainment systems operating under relatively tough conditions. Additionally, Aricent saved 40% of the cost for the customer during the development lifecycle.

The overall engagement helped the customer introduce an innovative product with rich in-car user experience well ahead of its competitors thus helping them gain a strong foothold in the highly competitive European in-car infotainment market.

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