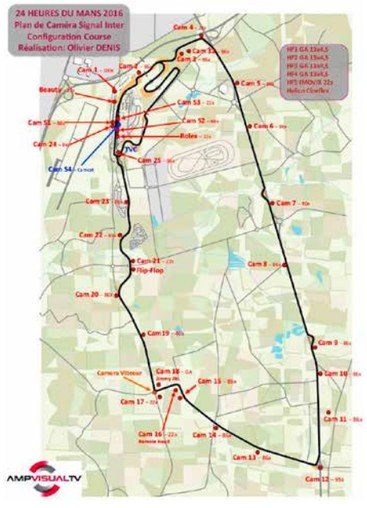
MILLENIUM SIGNATURE 12 AT THE 24H OF LE MANS

Only an exceptional event could be the maidenly broadcast for the exceptional OBVan from AMP VISUAL TV. So AMP VISUAL TV decided to debut the Millenium Signature 12 (MS 12) at the world's most famous endurance race in Le Mans. With the production of a 24-hour non-stop program for 30 international broadcasters for the delivery to 35 million spectators in 190 countries, the target was set very high.

45 cameras were positioned around the circuit, 52 wireless cameras were mounted on board of more than a dozen race cars (3-4 in each car), on a cable cam above the 360m long pit lane, in a helicopter and also an i-movix hyperslomo was operated wireless. All this was orchestrated in MS12's comfortable working environment, where on 76m² of space two international signals were produced: one for the pit lane action and one for the race itself.

Next to MS12 in the broadcast compound was the Extender 5 RF. This truck was programmed to capture the 52 signals from all the RF cameras and to send a pre-selection to MS12. The delivery of this selection of the 3-4 camera signals arriving from the cars was a mammoth task but worth the effort, because the viewers felt like they were sitting in the car together with the drivers. Backbone in the MS 12 is a Riedel Mediornet with close to 100(!) nodes which handled the 97 camera signals from around the track and from inside the racing cars seamlessly – decentralized video routing at its best.



Graphics and slow motion were managed by two more units: the Extender 2 and the Extender 3, complemented with augmented reality, this made for an incredibly dynamic broadcast with graphics embedded in the images using live tracking.

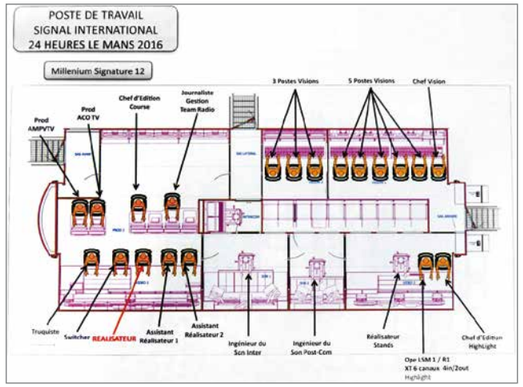
The Optimum 6 and Optimum 9 OB trucks completed the technical resources for Eurosport International and Eurosport France while Coach 10 and the IXI PROD truck worked in tandem for the UK channel Quest TV.
The coverage of the race was further enhanced by a special second screen application where AMP VISUAL TV guaranteed the streaming of 23 sources to enhance the private events of some of the participating car manufacturers. The experience went even further because AMP VISUAL TV introduced another first: A 360° camera was mounted onto a race car and the images were available as VOD to spectators giving them the chance to see the race from a complete new angle.

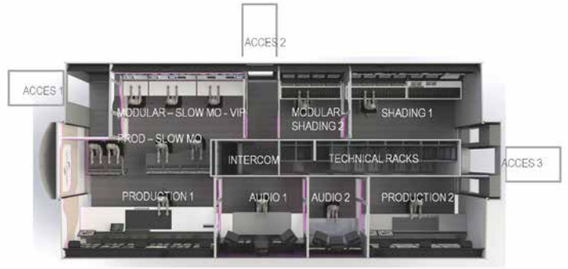
The Design of MS 12

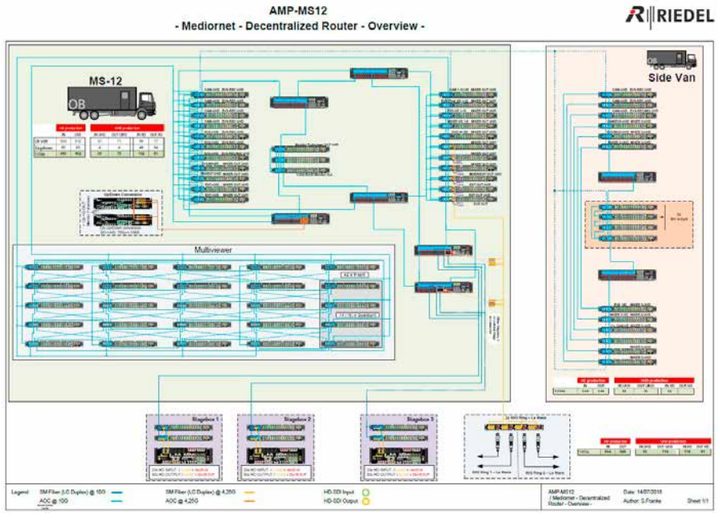
The MS 12 was designed in-house by AMP VISUAL TV. The coach building was carried out by Toutankamion. MS 12 can be considered as one of the most spacious OB trucks in Europe, if not worldwide. The two side extensions cover its full length and have no interior walls or panels. Systems integration was done by Videlio-Media according to AMP VISUAL TV's specifications. Every detail from lighting to the modularity of the workspaces was carefully considered.

The technical Infrastructure of MS 12

AMP VISUAL TV has built its groundbreaking MS 12 HD/4K-capable OBVan on a Riedel MediorNet real-time media network of unprecedented scale. Due to its modular design and mobile partition system, MS 12 can turn into a two-in-one OB truck capable of conducting joint operations with two production areas, two audio mixers, two vision rooms, and up to 42 modular workspaces.





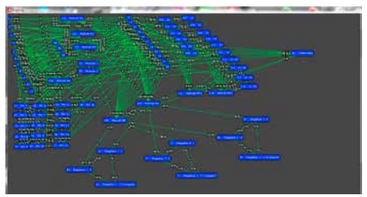


The Riedel Mediornet Backbone

AMP VISUAL TV's sophisticated approach completely relies on a robust MediorNet infrastructure — one of Riedel's biggest so far — that offers essential benefits by replacing the traditional router, providing video, audio, data, and intercom transport and delivering routing and processing capabilities. Deployed in a fully redundant configuration built on a 10 Gb/s fiber network, 68 MicroN high-density signal interfaces, eight MetroN core routers, three MediorNet Compact Pros, and two MediorNet Modular frames are combined to serve as a decentralized matrix that transforms the MS12 into an unique OB van concept, with router elements situated in the ideal physical location for any given workflow or production.

"The MediorNet MicroN gives us much greater freedom in building sophisticated media infrastructures, from signal transport to full video router functionality and signal processing," said François Valadoux, Chief Technology Officer at AMP VISUAL TV. "With major events approaching, we need a 100 percent reliable and flexible system that will remain future-proof as the market migrates toward a fully IP-based environment. Given the ambitious goal for our pioneering MS12 12 OB van, and especially the ability to address 4K productions, I have to admit that the system is impressive, and we are very proud of the result. Our 4K-ready Riedel systems are ready for every big event."

François Valadoux
Chief Technology Officer at AMP VISUAL TV



Part of Riedel's MediorNet line of real-time media transport and management solutions, the MicroN devices give AMP VISUAL TV a high degree of flexibility in addressing the current and future demands of video production. With on-board signal-processing capabilities including frame synchronization, embedding/de-embedding, and delays, the MicroN-based solution handles SDI signals in a tremendously versatile and highly scalable routing solution, making it perfect for system architectures of any size. This modular approach introduces distributed system intelligence, with MicroN systems strategically located close to signal sources and destinations, and makes it easy for AMP VISUAL TV to tailor signal routing to the demands of individual productions, whether large or small.

Working seamlessly with the MediorNet MetroN core fiber router, which provides the backbone capacity in this system architecture, MicroN features a complete array of audio, video, and data inputs and outputs, including 12 SD/HD/3G-SDI inputs and outputs, two MADI optical digital audio ports, a Gigabit Ethernet port, two sync reference I/Os, and eight 10Gb MediorNet high-speed links. MediorNet Compact Pro frames provide AMP VISUAL TV with additional signal interfaces for their stage boxes, while MediorNet Modular frames support enhanced signal processing, including up-, down-, and cross-conversion. Fiber-based interconnections allow for less cabling within the truck, in turn saving space and reducing the weight of integrated systems.

The Modular Design

MS 12 is intended primarily for televised events requiring a very large number of cameras, or for two simultaneous productions, such as international broadcasts with its dirty or second screen feed. MS 12 relies on complete nodal, fully secure facilities with a record number of 12 technical bays. Its 2 extensions run the full length of the trailer increasing the width from 2.5 meters to 6.1 meters. MS 12: a concentrate of technology that will give tomorrow a new dimension to televised events!

From Le Mans to the UEFA EURO 2016

No fewer than 350 AMP VISUAL TV staff worked for almost a week on location at the Le Mans racing circuit with the MS 12 at the heart of the coverage. As soon as the race was over the MS 12 truck made its way to the Bordeaux stadium for a 4K production of one Euro 2016 quarter-final and a semi-final.

24h LE MANS 18-19 JUIN 2016

The 84th 24 Hours of Le Mans was an automobile endurance event held from 15 to 19 June 2016 at the Circuit de la Sarthe, Le Mans, France. Neel Jani of Porsche started from pole position for the second consecutive year, but heavy rainfall forced the organizers to start the race behind the safety car. Once the rain had stopped, the track sufficiently dried and the endurance cars were released from behind the safety car. Toyota, Audi, and Porsche traded off the race lead in the early hours until the No. 6 Toyota established a firm holds on first place, followed by the No. 5 Toyota and No. 2 Porsche. Issues for the No. 6 eventually allowed the No. 5 Toyota to take over the lead, maintaining a small gap from the Porsche. Kazuki Nakajima was driving the Toyota to the finish in the closing three minutes of the race when it suffered a mechanical issue and stopped on the circuit right after the finish line on his last lap. Jani overcame the one-minute gap to the ailing Toyota and passed it on the final lap, taking the race victory. It was Jani and co-driver Marc Lieb's first Le Mans win and Romain Dumas' second. The sister Toyota of Stéphane Sarrazin, Mike Conway, and Kamui Kobayashi finished three laps behind in second, while the No. 8 Audi of Loïc Duval, Lucas di Grassi, and Oliver Jarvis completed the race podium.

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