Connectivity and cybersecurity for agricultural machinery: Continental’s scalable telematics…



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Connectivity and cybersecurity for agricultural machinery: Continental’s scalable telematics platform

- Agriculture is benefiting from digitalization, at the same time growing machine connectivity leads to increasing pressure on manufacturers – for example regarding cybersecurity

- The scalable telematics platform uses Continental's experience in connecting cars and trucks and adapts the technology for agricultural machinery

- Continental is certified according to the cybersecurity norm ISO/SAE 21434 and able to meet all possible future requirements for the agricultural machinery sector

Hanover, Germany, November 13, 2023 - At Agritechnica in Hanover, Continental presented its scalable telematics platform that is designed specifically for equipping mobile machinery for the first time to the agricultural industry. The term scalability refers to a high degree of flexibility. While availing of a common technological platform, customers can choose between the 4G or 5G transmission standards – in different versions – for their agricultural machinery and also have a high degree of freedom when it comes to the required computing power. At Agritechnica, the technology company did not limit itself to displaying its hardware portfolio, but also presented a comprehensive strategy for the future of agricultural machinery connectivity. When it comes to connectivity for agricultural machinery, Continental is particularly focusing on cybersecurity. After all, in all sectors of the economy, the impact of cyber threats has increased considerably in recent years. And, due to the increasing connectivity of machines, the

risk is growing for agriculture, too. In the worst-case scenario, the consequences of possible cyberattacks can lead to crop failures and threaten livelihoods.

27 years of experience in the connectivity of vehicles

With its hardware portfolio for mobile machinery, Continental has positioned itself for the future. The so-called scalable telematics platform is based on telematics hardware for passenger cars and commercial vehicles. However, it has been tailored to the requirements of mobile machines. The basis for this was a detailed evaluation of typical applications, including those from agriculture. For example, the hardware boxes comply with protection classes IP67 to 69, a design not applied in passenger cars. The platform is scalable, for example, because it is designed for both the 4G and 5G transmission standards, or because of its flexibly adaptable computing capacity. The latter is important for the agricultural technology sector, as the different applications and machine sizes require very different telematics designs.

> We see enormous potential for our customers to differentiate themselves from the competition through the quality and safety of their connectivity solutions. By developing their mobile machines into absolutely reliable data producers, machine manufacturers can increase the productivity of their customers,

says Mario Branco, Head of Off-Highway at Continental.

> At the same time, however, we see very clearly that the development of telematics hardware exclusively for agricultural machinery would not be economical given the comparatively small production numbers involved.

This is why Continental is adapting existing technology from the passenger car and commercial vehicle sector to the needs of agriculture.

Continental has continuously expanded its expertise in the areas of connectivity, software architecture and cybersecurity over the years, not least through its subsidiaries Argus Cybersecurity and the automotive software specialists at Elektrobit. Major orders in the areas of cybersecurity and connectivity for trucks and off-highway vehicles, such as equipping vehicles with vehicle-to-X communication solutions

(V2X) or 5G hardware, show how Continental is already working on the autonomous mobility of tomorrow. Continental's customers can rely on the company's many years of expertise in the connectivity of vehicles and mobile machines. A predecessor company, Motorola Automotive, has been working in this field since 1996.

Digitalization as an opportunity, cyberattacks as a risk

The agricultural sector is benefitting immensely from the technology trends of digitalization and connectivity: precision farming, remote monitoring and digital data platforms are just a few examples. However, the rapid development of technological innovations not only brings opportunities, but also poses risks and challenges. In addition to the question of how to deal with the massive increase in computing power and transmission speed requirements, manufacturers of agricultural machinery are faced with one challenge in particular: cyber threats.

In the course of the increasing connectivity of mobile machines, a comprehensive strategy to defend against cyberattacks is essential. With maintenance contracts for the connectivity application area, Continental guarantees a long-term technological supply of cybersecurity updates for mobile machines equipped with its technology, even after the end of production of the corresponding hardware. Also, the company is certified according to the cybersecurity norm ISO/SAE 21434 and able to meet all possible future cybersecurity requirements for the agricultural machinery sector.

With its cybersecurity offering, Continental is working intensively on a topic that is currently becoming increasingly important in agriculture. This is because the industry is looking for standards and best practices. It is generally expected that the Cyber Resilience Act, which is likely to be published by the EU Commission in spring 2024, will apply to agricultural machinery. Accordingly, users are demanding a faster pace from their technology suppliers.

> We see ourselves as a strategic partner for agricultural machinery manufacturers who want to align their technology for the long term against this backdrop,

says Mario Branco.

> We have a lot of experience because we have already implemented comparable projects for other vehicle classes and we have the experts to systematically develop E/E architecture, connectivity and cybersecurity together.

Continental presents solutions for Agriculture 4.0 at Agritechnica 2023

Under the slogan

> Our Smart Farming. For your harvest of tomorrow

, Continental is presenting pioneering product solutions for the agricultural industry at this year's Agritechnica in Hanover in hall 20, booth A19. These include technologies such as AI-based systems, autonomous mobile robot solutions, sensors and tire technologies, all of which ensure greater sustainability, safety and efficiency on the farm, in the greenhouse and in the field.

Media Spokesperson Smart Mobility

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