

On-board computer for digital fleet management

ZF's Commercial Vehicle Solutions (CVS) division has unveiled the Scalar EVO Touch on-board computer for commercial vehicles, at IAA Transportation 2022 exhibition. It is connected to the vehicle's CAN.



The on-board computer is suitable for commercial vehicles (Source: ZF)

The connectivity hub offers fleets a gateway to current (ZF's Transics branded TX-Connect) as well as future technologies and data sources, explained the company. The on-board computer is ZF's first Internet of Things (IoT) connectivity solution. The company said, this computer will enable its recently launched Scalar Fleet Orchestration Platform to deliver its full potential by extending its functionality. It will initially be launched across the EMEA region.

"Helping commercial fleets advance their digital journey and optimize operational efficiency, Scalar EVO Touch enables a wide range of support functions leveraging complex data from multiple sources, including drivers, vehicles, dispatchers, and third parties," said Hjalmar Van Raemdonck, Head of Digital Systems Solutions with ZF's CVS division. "Evolving as a connectivity hub, Scalar

EVO Touch will also maximize the powerful future capabilities of ZF's new Scalar Fleet Orchestration Platform which establishes intelligent end-to-end systems to 'orchestrate' the entire process of freight logistics," added Van Raemdonck.

Scalar EVO Touch supports all the functionalities of its TX-SKY predecessor. It offers the display interface of a touchscreen computer. Fully integrated with ZF's multifunctional TX-Connect back-office software, it is also connected to the vehicle's CAN and tachograph.

The company explained, that equipped with latest performance capabilities, including a Quadcore Cortex A53 processor with 2 GiB RAM, EVO Touch has more memory and speed than TX-SKY. With a 32-GiB on-board flash, it also offers 64 times more storage than its predecessor. It also uses a Trusted Platform Module (TPM) for enhanced software, hardware, and data security, the company continued explaining.

2G, 3G, and 4G compatible, the product has a 4 G CAT M-1 modem for dedicated M2M connection as well as being upgradable to 5G. It also features Bluetooth 5.0 Client and Wi-Fi Direct connectivity. The on-board computer has a eUICC-enabled SIM card for switching between regional network providers and an Automotive Ethernet port to connect vehicle peripherals and sensors in a 'Connectivity Hub'. The product is also equipped with an accelerometer and gyroscope.



The on-board computer with touch optimizes data from multiple sources to enhance driver and commercial fleet efficiency, said the company (Source: ZF)



According to the company, leveraging advanced connectivity, Scalar EVO Touch can send and receive large volumes of data at high transmission speeds (Source: ZF)

The introduced computer is more compact, energy-efficient, and powerful than the previous generation. According to the company, connecting to ZF's TX-Flex, also provides a single, uniform front-end solution irrespective of the region or country it is operated in. It is also compatible with all European truck brands, the manufacturer claimed.

As a central device it will connect and collect information from several types of vehicle sensors and peripherals including CAN, advanced driver assistance systems (ADAS), driver behavior monitoring systems (DBMS), tachograph, power take-off (PTO) equipment, and trailer data. Providing fleets with enriched data, it can enhance efficiency and safety, including communicating driving events and collisions for analysis and future action prevention, explained the company. Acting as in-cab media channel, it can play customized information videos to drivers.

With all hardware and software developed in-house, EVO Touch is pre-equipped with technologies that anticipate future evolutions of ZF's digital fleet solutions by being Scalar's Fleet Orchestration Platform connectivity hub. EVO Touch can automatically integrate with other IoT beacons and asset tags that are being adopted across the mobility ecosystem. Ultimately, it will connect to smart vehicles as a connectivity hub for vehicle-embedded safety and efficiency systems, the company

concluded.