

Press release

AUTOSAR Releases Latest Adaptive Platform Adopting the DDS Standard

DDS Allows AUTOSAR to Further Meet the Requirements of Level 4 and Level 5 Autonomous Systems

SUNNYVALE (USA)/London, April 26, 2018 – Real-Time Innovations (RTI), the Industrial Internet of Things (IIoT) connectivity company, announced that AUTOSAR (AUTomotive Open Systems ARchitecture) has just released the latest version of the Adaptive Platform, Release 18-03, which features the Data Distribution Service (DDS) standard. RTI joined AUTOSAR in 2017 to help advance the platform and ensure that it meets the technical requirements for autonomous vehicles.

The AUTOSAR Adaptive Platform is a standardized software platform designed to meet the increasing technology demands of new automotive applications. For the first time, the Adaptive Platform supports the Object Management Group (OMG) DDS connectivity standard for mission-critical real-time systems, allowing the AUTOSAR standard to further meet the requirements of highly autonomous systems, such as level 4 and level 5 autonomous vehicles. Together, the DDS and AUTOSAR standards contribute to a robust ecosystem for autonomous systems, with DDS offering a data-centric architecture that eases the integration path to other IIoT systems, and connects applications and systems of systems together.

The automotive industry is a significant growth market for RTI due to the rise of autonomous vehicles and the need for a reliable, secure and high-performance connectivity framework. Since autonomous vehicles are highly complex systems that combine vision, radar, LIDAR, proximity, sensors, GPS, mapping, navigation, planning and control, autonomy is an extreme technical challenge. These systems must analyze and respond to chaotic environments in real time while

maintaining the highest safety and security requirements. RTI is the only company with the depth of experience in delivering standards-based solutions for these sophisticated autonomous systems.

“With AUTOSAR now including the DDS standard, a new technical market has been created within the automotive industry,” said Bob Leigh, senior market development director, autonomous systems at RTI. “As autonomous systems continue to evolve, there is a growing importance on the underlying architecture, safety and security. At RTI we have extensive experience in working with customers that have some of the most demanding mission and safety-critical applications, and who have selected DDS as the backbone of their systems. Traditional car manufacturers and vendor ecosystem providers, who have embraced AUTOSAR, will now be able to use DDS to compete in this race for the future of transportation.”

AUTOSAR and DDS

AUTOSAR is a worldwide development partnership of car manufacturers, suppliers and other leading companies in the electronics, semiconductor and software industries. This latest revision of the AUTOSAR Adaptive Platform integrates several new features into the open system architecture standard. The release defines a DDS communication binding for the Adaptive Platform Communication Management API and is the first in a series of releases that will add support for new functionality. Prior to this update, AUTOSAR applications were limited in terms of communications protocols and integrations. Now, using the DDS standard, system architects can improve the evolvability of their designs, preparing all systems for future technical advancements. Additionally, DDS allows auto manufacturers to leverage other technologies outside of the AUTOSAR specification including connected and cloud-based technologies. The world is becoming more connected and self-driving cars are just one example—combining personal transportation, social media and a connected infrastructure in one place. The new Adaptive Platform offers broader integration possibilities for autonomous vehicles enabling a more innovative and exciting future.

Read more about RTI's work in the autonomous driving industry [here](#).

Picture (source: RTI / Shutterstock):



The Connectivity Platform RTI Connex DDS meets the demanding requirements of Autonomous Cars.

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About Real-Time Innovations, Inc. (RTI) (www.rti.com):

Real-Time Innovations (RTI) is the Industrial Internet of Things (IIoT) connectivity company. The RTI Connex[®] databus is a software framework that shares information in real time, making applications work together as one, integrated system. It connects across field, fog and cloud. Its reliability, security, performance and scalability are proven in the most demanding industrial systems. Deployed systems include medical devices and imaging; wind, hydro and solar power; autonomous planes, trains and cars; traffic control; Oil and Gas; robotics, ships and defense.

RTI lives at the intersection of functional artificial intelligence and pervasive networkingSM.

RTI is the largest vendor of products based on the Object Management Group (OMG) Data Distribution Service[™] (DDS) standard. RTI is privately held and headquartered in Sunnyvale, California.

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