Stellantis, BlackBerry QNX and AWS Launch Virtual Cockpit, Transforming In-Vehicle Software Engineering

- Stellantis introduces the first-of-its-kind virtual cockpit as a key component of the Stellantis Virtual Engineering Workbench (VEW)

- Industry-first innovation accelerates Stellantis development cycles up to 100 times, speeding up delivery of infotainment tech to customers

- BlackBerry QNX announces early access launch of QNX Hypervisor in the cloud on AWS Marketplace for mixed criticality and multi-OS embedded application development

AMSTERDAM – Global automaker Stellantis N.V. led the creation of the world's first virtual cockpit platform as part of its Stellantis Virtual Engineering Workbench (VEW) enabling the delivery of infotainment tech to customers 100 times faster than previous processes. The new platform uses the QNX® Hypervisor in the cloud from BlackBerry, which is now on early access release via AWS Marketplace within the QNX Accelerate portfolio of cloud-based tools. Stellantis can now create realistic virtual versions of car controls and systems, making them behave just like they would in a real car, but without needing to change the main software that runs them, taking what used to take months to be achieved down to 24 hours in some cases.

Accessing QNX Hypervisor via AWS Marketplace enables Stellantis to include a virtual cockpit high-performance computing (HPC) simulation into a cloud environment. This industry-first platform for mixed-criticality and multi-OS embedded application development includes QNX Hypervisor Amazon Machine Images (AMIs) and industry-standard hardware interfaces as defined in the VirtIO standard Trout v1.2. With tools such as virtualization of graphics,

audio, and touchscreen/mouse/keyboard inputs, the solution offers little to no difference between running QNX Hypervisor-based systems in the cloud versus on real hardware.

Software is a key building block for Stellantis to deliver clean, safe and affordable mobility, as outlined in the Dare Forward 2030 strategic plan, and the driving force behind the AI-powered STLA Brain, STLA SmartCockpit and STLA AutoDrive technology platforms. In 2022, Stellantis selected AWS as its preferred cloud provider for vehicle platforms and the companies began work on Stellantis' purpose-built, in-house VEW.

Taking a software-driven approach and deploying the QNX Hypervisor in the cloud, Stellantis can accelerate customer feedback sessions, and with minimal effort, replicate the cockpit experience of a particular brand and vehicle, and make changes in real time to optimize the experience for the driver. This real-time feedback, underpinned by low-latency access to the cloud, allows Stellantis to solicit valuable feedback from its customer and developer base to build future infotainment features and applications.

> Software is becoming increasingly crucial in vehicles, leading us to innovate in how we develop and validate it," said Yves Bonnefont, Chief Software Officer at Stellantis. "With our virtual cockpit, we're revolutionizing not just our approach, but also that of our suppliers and partners in the industry. Essentially, we're able to get closer to our customer's needs through this technology with faster development cycles, faster feedback loops, and quicker delivery of the technology they use and love. It's a leap towards customer-first innovation and efficiency in the automotive world.

> We're delighted to introduce early access availability of our trusted QNX Hypervisor platform in the cloud, leveraging the vendor and platform-neutral VirtIO standard that QNX has long-supported for its importance in creating a true-to-life virtual development environment for embedded software," said Mattias Eriksson, President, BlackBerry IoT. "Working with Stellantis to launch the world's first commercial hypervisor in the AWS cloud helps to reduce complexity, accelerate innovation and cut costs on in-car software development throughout the entire product lifecycle.

Software virtualization and abstraction in the cloud is vital to accelerating development and maintaining feature delivery on-pace with consumer demand," said Wendy Bauer, Vice President and General Manager, Automotive and Manufacturing, AWS. "With BlackBerry's QNX Hypervisor on AWS Marketplace, Stellantis can easily harness the power of the cloud to reimagine research and development processes, architect more insightful ways to solicit and integrate feedback, and deliver functions faster than before that delight drivers and further the industry.

Standard VirtIO interfaces are also used by a suite of automotive partners to scale their offerings across OEMs and enable plug-and-play across the OEM landscape. Recognizing the benefits, AWS fully supports the VirtIO industry standard for cloud simulation of cockpit HPCs.

BlackBerry QNX launched QNX Accelerate in January 2023 with its portfolio initially featuring QNX® Neutrino® RTOS 7.1 and the QNX® OS for Safety 2.2.3, each provided as Amazon Machine Images allowing QNX customers to run a QNX OS natively on AWS cloud hardware. The early access release of QNX Hypervisor in the cloud is available now and general availability will be announced later in 2024.

A non-branded demonstration of the technology is available at the Consumer Electronics Show (CES) from January 9 – 12, 2024, at the Las Vegas Convention Center. Visit BlackBerry at Booth #4224 in the West Hall.

BlackBerry (NYSE: BB; TSX: BB) provides intelligent security software and services to enterprises and governments around the world. The company secures more than 500M endpoints including over 235M vehicles. Based in Waterloo, Ontario, the company leverages AI and machine learning to deliver innovative solutions in the areas of cybersecurity, safety, and data privacy solutions, and is a leader in the areas of endpoint management, endpoint security, encryption, and embedded systems. BlackBerry's vision is clear - to secure a connected future you can trust. For more information, visit BlackBerry.com and follow @BlackBerry.

Trademarks, including but not limited to BLACKBERRY and EMBLEM Design, are the trademarks or registered trademarks of BlackBerry

Limited, and the exclusive rights to such trademarks are expressly reserved. All other trademarks are the property of their respective owners. BlackBerry is not responsible for any third-party products or services.

Stellantis N.V. (NYSE: STLA/ Euronext Milan: STLAM/ Euronext Paris: STLAP) is one of the world's leading automakers aiming to provide clean, safe and affordable freedom of mobility to all. It's best known for its unique portfolio of iconic and innovative brands including Abarth, Alfa Romeo, Chrysler, Citroën, Dodge, DS Automobiles, Fiat, Jeep®, Lancia, Maserati, Opel, Peugeot, Ram, Vauxhall, Free2move and Leasys. Stellantis is executing its Dare Forward 2030, a bold strategic plan that paves the way to achieve the ambitious target of becoming a carbon net zero mobility tech company by 2038, while creating added value for all stakeholders. For more information, visit www.stellantis.com.

Press release distributed by Wire Association on behalf of Stellantis, on Jan 9, 2024. For more information subscribe and follow us.

Media Assets

Embedded Media

Visit the online press release to interact with the embedded media.

https://wireassociation.eu/newsroom/stellantis/releases/en/stellantis-blackberry-qnx-and-aws-launch-virtual-cockpit-transforming-in-vehicle-software-engineering-1594

Stellantis

Newsroom: https://wireassociation.eu/newsroom/stellantis
Website: https://www.stellantis.com/
Primary Email: communications@stellantis.com

Social Media

Linkedin - https://www.linkedin.com/company/stellantis/
Twitter - https://twitter.com/stellantis
Facebook - https://www.facebook.com/Stellantis
Youtube - https://www.youtube.com/channel/UCKgSLvI1SYKOTpEToycAz7Q