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Will NVIDIA be the leader of the next-gen self-driving development platform?

Business Comments for CES 2020

Why OS for self-driving is so crucial? Who is the players in the market?

The meaning of operating systems to the autonomous driving industry is just as the meaning of android to the mobile phone industry. Who leads the platform and cultivates the widest developer user base probably will share the biggest market of the autonomous driving industry in the near future. There are several key players now. Blackberry is widely known for its QNX embedded software development platform in various automobiles while NVIDIA promotes its OS platform as an extension of the GPU service. Tesla claimed they owned faster computing power than NVIDIA for self-driving cars while Intel is professional at the ADAS system with their eyesight platform.

The different company has different advantages such as large user base, low-cost product, and more vertical and accurate technology. Some of these companies have adopted different strategies and showed it in CES 2020. Let's at first take a look at NVIDIA

NVIDIA Shows DRIVE AGX Orin – Advanced, Software-Defined Platform for Autonomous Machines at CES 2020

The platform is powered by a new system-on-a-chip (SoC) called Orin, which consists of 17 billion transistors and is the result of four years of R&D investment, deliver 200 trillion operations per second—nearly 7x the performance of NVIDIA's previous generation Xavier SoC.

It seems NVIDIA wants to be the leader of high prices and high computational power. Orin is designed to handle a large number of applications and deep neural networks that run simultaneously in autonomous vehicles and robots with a higher price than its competitor.

Besides the hardware, NVIDIA is building the self-driving ecosystem from algorithm API NVIDIA DRIVE to driving simulation platform Constellation. With the absolute technical advantage in chips, will the software platform also be popular in the industry?

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However, it's the truth that older players like QNX have a larger user base about 150 million automobiles, which is an unignorable threat to NVIDIA, Let's take a look at their action.

BlackBerry announces QNX integration with Cylance security systems and Renovo Insight platform at CES 2020

Cylance uses artificial intelligence and machine learning to predict and prevent security threats to fixed endpoints with a lightweight software agent that sits on the device and operates both online and offline.
BlackBerry bought Cylance in 2018 for $1.4 billion, the biggest acquisition in the company's history and the latest move in its evolution to a software company focused on the Internet of Things, its QNX platform for autos, and security software.

Renovo's intelligent automotive data platform, Insight, uses artificial intelligence (AI) and intelligent tagging to quickly move data from the vehicle to the cloud. After ingesting data to the cloud, developers can index the data, garner important insights, and distribute those insights to engineering teams, a Renovo press release stated.
BlackBerry QNX's technology is already embedded in 150 million cars today, many of which are Renovo's autonomous test fleet. The partnership will form a safe and reliable in-vehicle system with a safety certification path, Karimi said.
Instead of computing power, QNX put more emphasis on building a data processing system and security system. QNX already has a lot of city transportation customers, which means security is more crucial to them. With the integration with the intelligent data processing platform, insight, QNX is able to manage data for their customer and help them improve their development.