

AUTOMOTIVE

BAIDU

Getac customizes computers for the security team of the Baidu Internet of vehicles, to provide more efficient detection for vehicle information security

/ Challenge /

Security is the main challenge facing the future of autopilot. Hackers can control the driving system via wireless networks and engage in dangerous driving behavior. The automotive industry urgently needs an information security detection system to protect network security, while the computer running the system needs to meet the special customization requirements of the Baidu security team, so that the mobile computer can be more suitable for automotive detection applications.

/ Solution /

In order to develop and deliver the solution, Getac signed a cooperation contract with Baidu to customize the Getac X500 to add a docking station connected to the CAN bus for smart car security scanning, vulnerabilities detection, test report generation and fix suggestion.

/ Benefits /

With the customized Getac X500, the staff can carry out security detection for cars anytime, anywhere, and provide test reports and suggestions for modification to ensure the information security of the internal calculation system of the automobile and avoid the danger and loss caused a hacker intrusion into an automobile, thus providing superior work efficiency.

/ Quote /

"We need to fully scan the vehicle bus information. The Getac X500 provides us with full scalability, mobility and durability, and we are very satisfied with this."

Engineer of Baidu Internet of Vehicles - Baidu, Chinese search engines.



Getac X500
Ultra Rugged Notebook

/ Challenge /

Autopilot is an important research area when developing artificial intelligence. All technology companies, automobile companies and users hope that unmanned vehicles can be realized as early as possible. However, for the entire automotive industry, full implementation of unmanned vehicles will not be an easy task. Security is the main challenge facing the future of autopilot. Hackers can access the vehicle network via Bluetooth, cellular network or wireless network and transmit data to the vehicle network to control the driving system, engage in dangerous driving behavior or even initiate terrorist attacks via the CAN bus network.

The security team of the Baidu Internet of Vehicles has developed a system for car information security detection purpose to protect the security of the smart car network; however, they still need a computer that meets their requirements to run the system. This computer needs to adapt to the harsh production environment in the factory floor, be able to operate for a prolonged period, be visible in the sun during outdoor testing, and even meet special customization requirements, so that this mobile computer is more suitable for automotive detection applications.

/ Solution /

In order to ensure the security of vehicle information and avoid the threat of car owner's privacy being hacked and stolen thus threatening driving safety, it is necessary to use a rugged mobile computer customized to meet the requirements of Baidu's security team to perform security scanning on the main components of the smart car. In order to develop and deliver the solution, Getac signed a cooperation contract with Baidu to customize the Getac X500 to add a docking station connected to

the CAN bus for smart car security scanning, log analysis, known vulnerabilities detection, unknown vulnerabilities discovering, test report generation, and repair suggestions.

As a world-renowned brand of rugged laptop and tablet, Getac has been well-recognized, providing customized and recognized robust solutions for defense, emergency services, utilities and automotive manufacturing around the world. Getac X500 is the model Baidu selected. It is the most classical and fully-rugged 15.6" flagship model, which is rugged and endurable with outstanding performance. It is ideal for the demanding workshop environment. It is fully adapted to the harsh working environment of the factory floor. Its expandable function makes it applicable for smart car security information detection. Its outstanding performance includes the following aspects:

- The Getac X500 comes with an optional expansion slot, an incomparable advantage that most other rugged laptops do not have. The X500 with docking station installed can be connected to the car CAN interface for easy security information detection. The Getac X500 comes with two optional slots for PCI or PCI Express 3.0, which combines the power of desktop expansion with the portability of a rugged laptop. With the Getac X500 with docking station, the staff scanned the security vulnerabilities of BCM, PEPS, gateway, ABS and EMS on the vehicle bus to ensure the security of vehicle information.
- Secondly, the test car may need to be used in the workshop or laboratory where there is much equipment and cables, and the working equipment is likely to experience collision or accidental fall. The Getac X500 meets the sturdy and durable features of MIL-STD 810G, IP65 and MIL-STD-461G. Even in case of accidents such as

impact, splashing liquid, vibration and falling, the operation of computer will not be affected.

- In addition, Getac's expertise and customer service are also a big advantage, because Baidu needs a partner who can work closely together to ensure that equipment can be customized to meet a variety of needs. In addition to custom devices, Getac also helps Baidu integrate the necessary software and connectors and put forward compelling new recommendations.

/ Benefits /

Security is the main challenge on the road after the popularization of autopilot in the future. With the customized Getac X500, the staff can carry out security detection for cars in any harsh environment anytime, anywhere, and provide test reports and suggestions for modification to ensure the information security of the internal calculation system of the automobile and avoid the danger and loss caused by a hacker intrusion into an automobile, thus providing superior work efficiency.

