![AAEON an ASUS assoc. co.]

IT Just Got Smarter: Discover Intelligent Transportation with AAEON's Intelligent Solutions

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The evolution of Intelligent Technology and how they will impact our lives has become one of the primary topics of discussion in the world of technology. As standards and technologies mature, we see more and more applications become candidates for an "intelligent" facelift, while existing applications build on their strengths for more sophisticated features that were once deemed "impossible" to accomplish.

Focusing on public transports (buses and railways), parking management, turnstiles, electronic toll collection and fleet management, AAEON has developed a multitude of innovative solutions that ease operational complexities, as well as expand existing functionalities in the transportation industry.

With AAEON's BOXER-6851 Embedded Box PC, car park operators offer enhanced safety and security through the use of cameras to monitor the entire facility and, when used with AAEON's NVR-Q67 Network Video Recorder, can process and store the recorded data for future analysis.

Car parks with AAEON's devices may also introduce features such as ultrasound sensors for detecting slot occupancy, wireless modules for wireless communications with the control center or assisting drivers to locate their vehicles and plate recognition for finding lost vehicles.

RS-485/422/232
DIO
RS-232
VGA
LAN

BOXER-6851

PFM-CVS

PFM-T096P

BOXER-6851

EPIC-BDU7

PFM-T096P

EPIC-BT07

FWS-7810

NVR-Q67
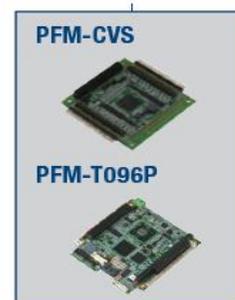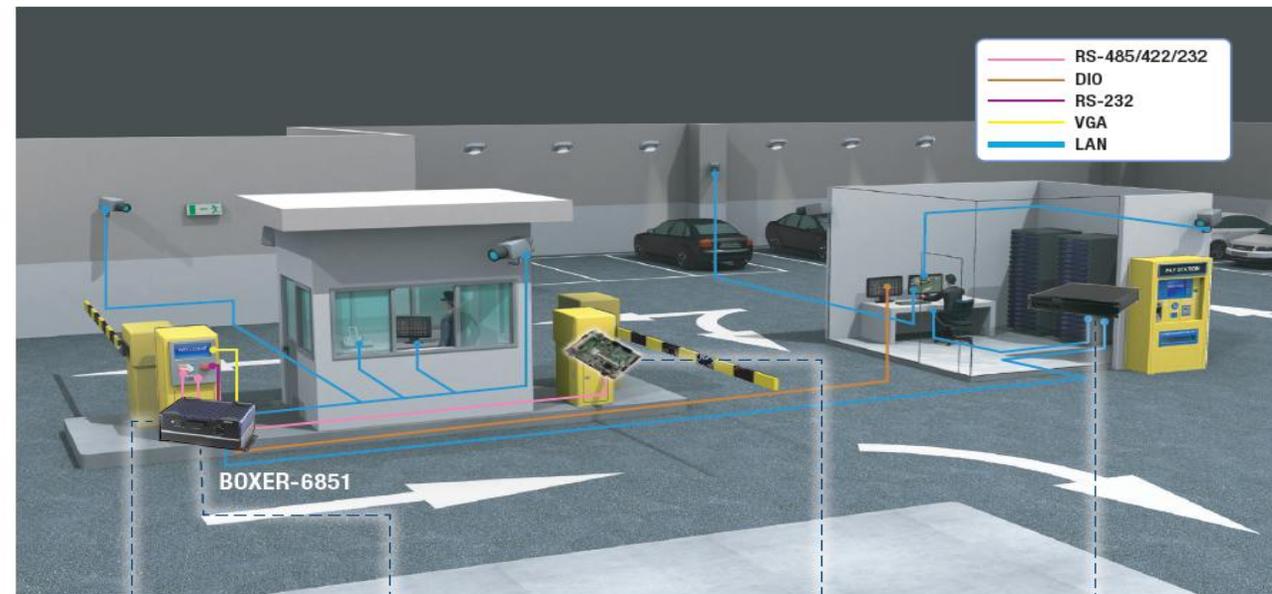
Intelligent Transportation – Buses
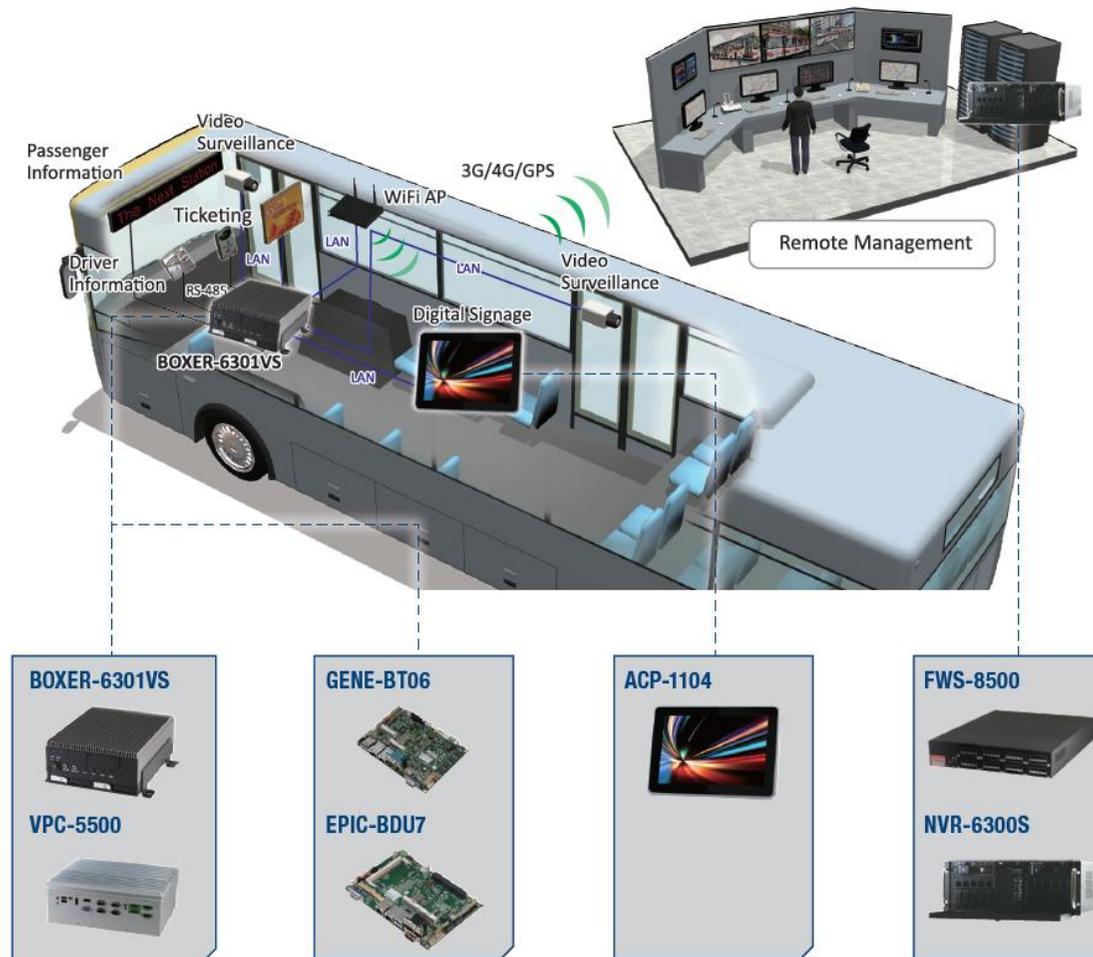
With AAEON's fan-less BOXER-6301VS Embedded Box PC and VPC-5500 Vehicle PC, passengers may enjoy network connectivity via in-vehicle WiFi, while infotainment content plays on the onboard displays. The driver can monitor the conditions in and around the bus on a screen displaying the feeds from onboard cameras.

In the control room, AAEON's NVR-6300S processes the incoming data from the fleet, allowing for real-time, condition-based decision-making. Bus routing can be adjusted based on analytics of data received from the bus and response to situations such as traffic conditions, mechanical systems failure or emergency situations can be made remotely and efficiently.

Mundane everyday train rides can be made more interesting as network connectivity is now provided for with the help of AAEON's BOXER-6370VS or BOXER-6357VS Embedded Box PC. Additional media options are opened up with onboard displays that show both infotainment contents and the trip's status.

Safety is enhanced as the train, tracks and stations are closely monitored in the control center using AAEON's NVR-6300S Network Video Recorder, which gives operators the ability to not only store the captured footage, but to provide instant feedback and advise the conductor, should a problem develops on the train or its intended route.

NVR-6300S

FWS-8500

BOXER-6370VS

EPIC-BDU7

BOXER-6357VS

GENE-QM87

ACD-110D
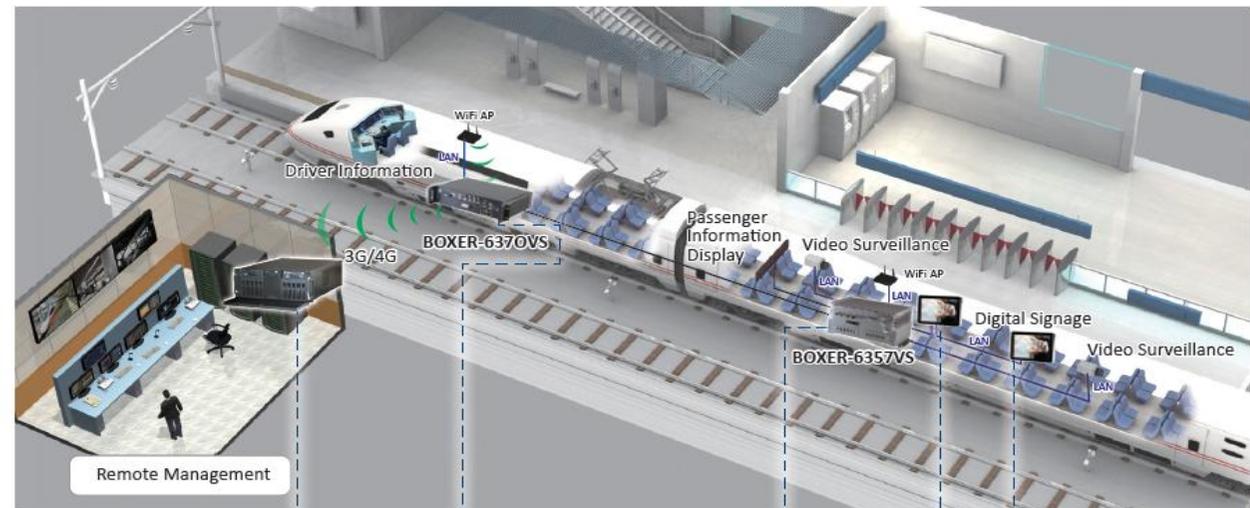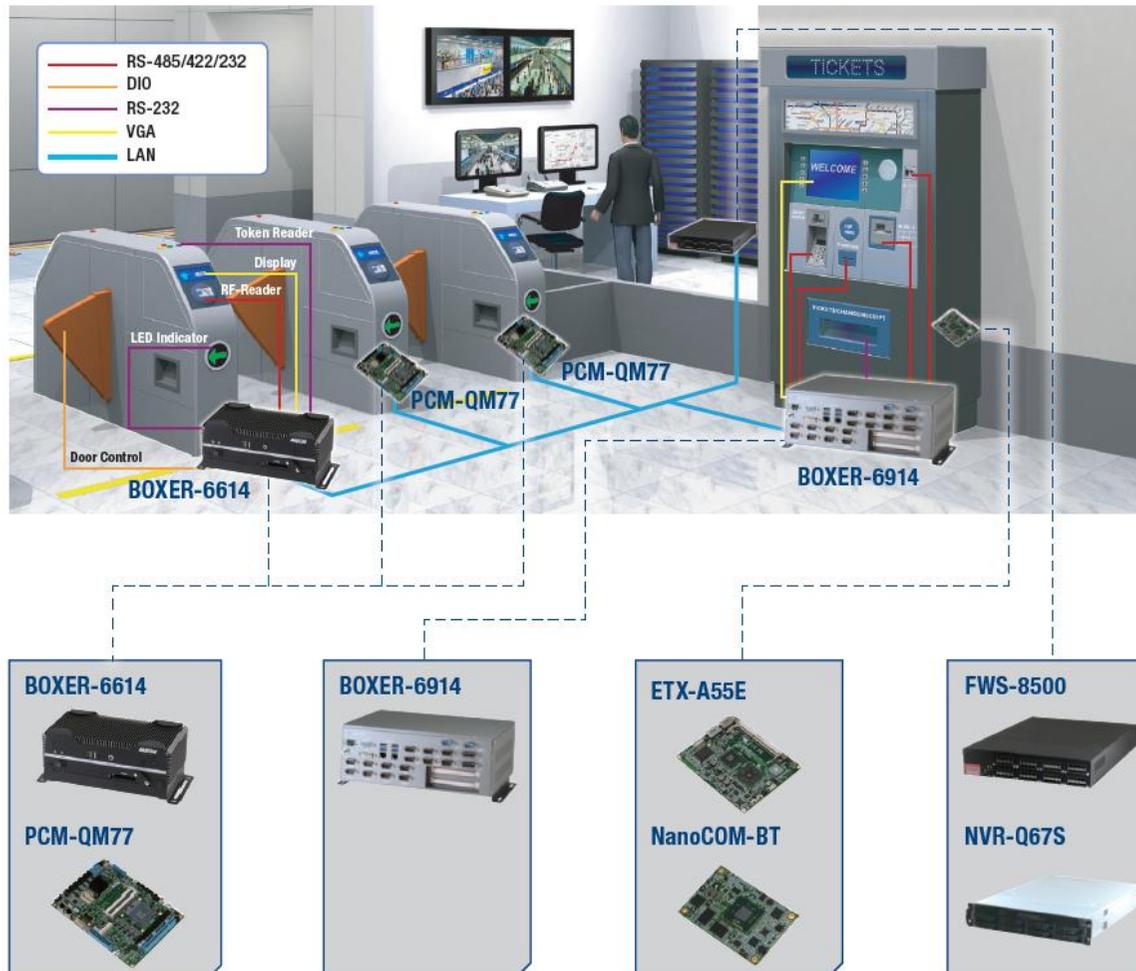
Access control or paid access often involves the use of a turnstile, a unidirectional gate which grants entry to a single person at any one time. While turnstiles of the past served the sole purpose of regulating the flow of people, their modern iterations are basically computers of their own that are an integral part of the business.

Packed with a number of data communication capabilities, such as COM ports, DI/Os and video outputs, AAEON's BOXER-6614 Embedded Box PC allows the incorporation of a broad array of features, such as card readers and LCD displays, for adding appeal and aesthetics necessary for a modern day business.

Captured data (on access frequency and other aspects) can be sent wirelessly or through LAN to AAEON's NVR-Q67S, located in the control center, for, among other purposes, analysis on the business' popularity among their target audience.

Equipped with GPS, WiFi and 3G capabilities, AAEON's BOXER-6313/ BOXER-6301VS Embedded Box PCs can be fitted onto every vehicle in the fleet for real-time wireless communications with the main control center.

With the help of AAEON's NVR-6300S Network Video Recorder, not only the movement and location of the vehicle can be tracked and traced, instances of abnormal driving behaviors or stoppages can also be captured and monitored, thereby enhancing safety.

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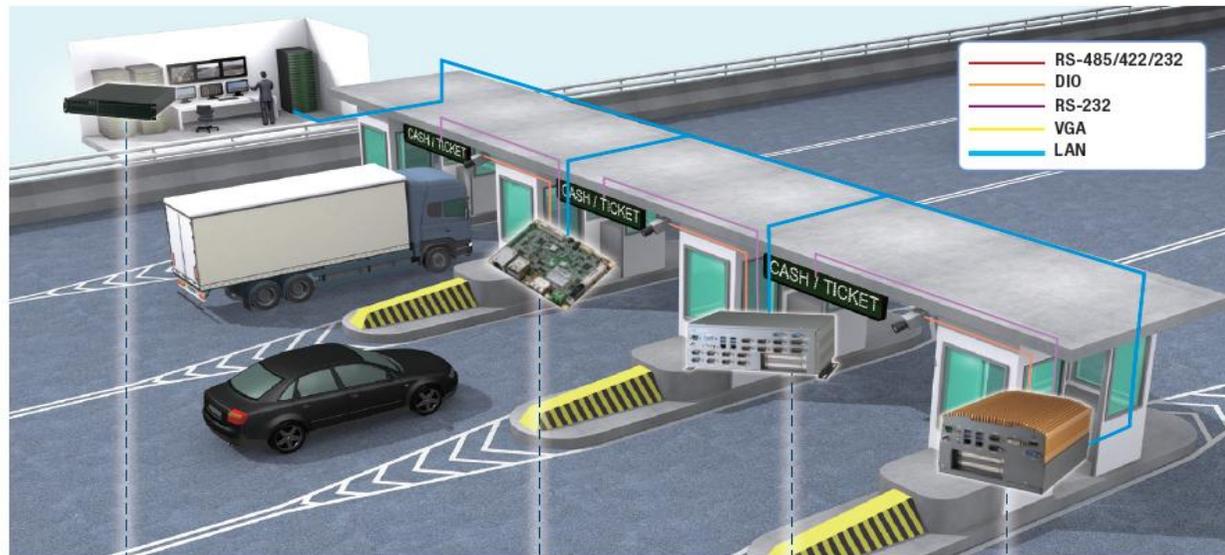
Another aspect in the transportation industry to be revolutionized with Intelligent Technology is electronic toll collection systems. These systems eliminate inefficiencies commonly associated with manual toll collections, which include traffic slowdowns, time wastages, increased fuel consumption, pollution and human errors.

As a vehicle approaches a toll collection area equipped with AAEON's DI/O-enabled AEC-6977 and BOXER-6914 Embedded Box PCs, the driver will be notified about the lane their vehicle should enter, as well as the price to be paid on an LED display fitted above each lane. Cameras setup along the lanes will be monitoring the day's operation and the feed will be sent via LAN to the control center, where, thanks to AAEON's NVR-Q67 Network Video Recorder, it will be further processed, analyzed and stored.

NVR-Q67

FWS-8500

PCM-QM77

GENE-QM87

BOXER-6914

AEC-6977

RS-485/422/232
DIO
RS-232
VGA
LAN

AAEON's intelligent solutions, such as the EPIC-BT07 board and BOXER-6914 Embedded box PC, incorporate video output options for LED displays so that motorists have a better knowledge of the overall process and transaction of refueling their vehicle; DI/Os and COM ports for built-in POS systems allowing on-the-spot payment, helping to avoid a trip into the store and allowing the vehicle occupant to remain with the vehicle.

The extra intelligence at the dispensing location and related display technologies also provide the opportunity for targeted marketing and delivery of related travel information.
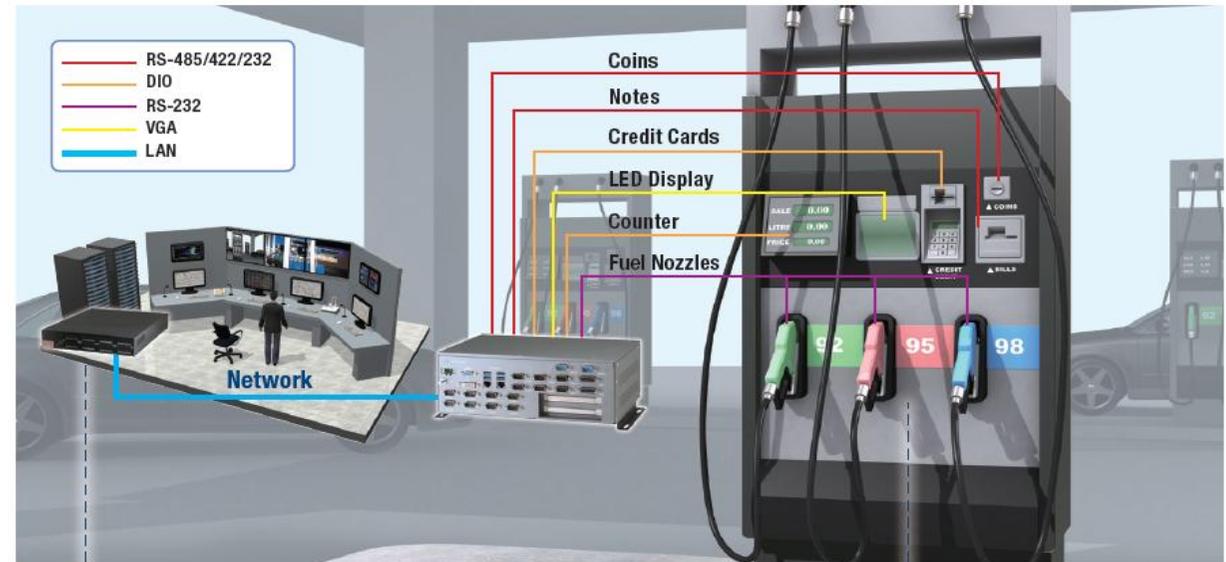
Conclusion

Whether it is stationary or mobile, indoor or outdoor, AAEON understands the requirements of its clients in the transportation industry and continue to designing and introduce solutions that are most optimized and applicable to fit their needs. For more information about the abovementioned products, please visit http://www.aaeon.com.

About AAEON

AAEON is a leading manufacturer of advanced industrial and embedded computing platforms. Committed to innovative engineering, AAEON provides integrated solutions, hardware and services for premier OEM/ODMs and system integrators worldwide. Reliable and high quality computing platforms include industrial motherboards and systems, industrial displays, rugged tablets, PC/104 modules, PICMG half-size and full-size boards and COM modules, embedded SBCs, embedded controllers and related accessories. AAEON also offers customized end-to-end services from initial product conceptualization and product development on through to volume manufacturing and after-sales service programs. AAEON is a GSA contract holder (#GS-35F-0470Y) serving the Federal, State & Local government sectors. AAEON is also an Associate member of the Intel® Internet of Things Solutions Alliance. From modular components to market-ready systems, Intel and the 250+ global member companies of the Intel Internet of Things Solutions Alliance provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Close collaboration with Intel enables Alliance members to innovate with the latest technologies, helping developers deliver first-to-market solutions.