

SECURING TRANSPORTATION INFRASTRUCTURE

How Vanma Provides Solutions for the Traffic Industry



Vanma

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How Vanma Provides the Best Security Solutions for the Traffic Industry

The transportation system is one of many critical infrastructure sectors. In general, there are seven modes of transportation in the transportation sector, one of which is highway and automobile transportation, including roads, bridges, tunnels, vehicles, operations management systems, and so on. Several specific agencies in the transportation sector publish a set of standards to achieve safety goals in the transportation sector. One of the areas of focus is managing risks to physical, human, and cyber elements of critical transportation infrastructure." One important factor that the National Transportation Agency sees as problematic is the physical security of traffic cabinets and roadside communications equipment.

Traffic Control Boxes

Traffic control boxes and digital signage are expensive pieces of equipment that are critical to the safe and smooth operation of roads and highways. Each traffic control box contains thousands of dollars worth of critical equipment, including network devices, computers, expensive cables, and more.

EACH TRAFFIC CONTROL BOX CONTAINS THOUSANDS OF DOLLARS WORTH OF CRITICAL EQUIPMENT. THE SECURITY OF THIS EQUIPMENT IS OF PARAMOUNT IMPORTANCE. TRAFFIC BOXES ARE A TEMPTING TARGET FOR THIEVES



The safety of these assets is critical to the safety and reliability of our transportation infrastructure. The traffic control box not only controls the flow of traffic, but also houses the equipment used to control other public systems. Because it contains thousands of dollars worth of critical equipment, the traffic control box is an attractive target for thieves.



Numerous reports illustrate the prevalence of traffic box thefts. Not only are traffic boxes a target for theft of internal components, but they are also vulnerable to tampering. Whether malicious or not, tampering creates dangerous conditions for the public.

Roadside Equipment

Roadside equipment is a frequent target for tampering, especially speed measuring devices and digital signage. Unauthorized persons regularly alter the information displayed on digital signs with useful or malicious intent. A routine search of the Internet leads to countless photos and news stories showing employees of DOT and members of the public making unauthorized changes to digital signage. Tampering is not only a danger to motorists, but can also pose a problem for the employees and technicians who maintain the equipment. When they leave their regular maintenance route to fix problems caused by tampering, important planned maintenance can be delayed.

Mechanical Keys

Regional and local transportation departments are working to properly secure traffic lockers and street communications. A major problem with fixed traffic lockers comes from the usual mechanical keys. Standard access control keys are issued for most transportation lockers. Keys are widely used and can be easily copied. Also, it is not safe for a single key to open various transportation lockers across the country. The task of the transport sector is to find reliable security solutions to the problems and risks associated with mechanical keys.



THE LACK OF CONTROL OF THESE MECHANICALLY CRITICAL SYSTEMS THEMSELVES CAN COMPROMISE THE SECURITY OF THE GLOBAL TRANSPORTATION INFRASTRUCTURE. MECHANICAL LOCKS AND KEYS ARE NOT COMPLEX ENOUGH



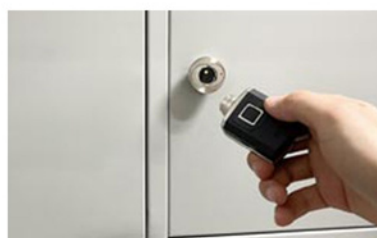
The key is commonly used to access traffic cabinets from many major manufacturers. Unfortunately, it is also one of the easiest mechanical keys to copy or acquire online. On any given day, a large number of these keys are available for purchase. In addition, new technologies now allow for the exact replication of any mechanical key. Despite these concerns, the mechanical key is often the only form of security that prevents unauthorized access to critical roadside equipment; equipment that should only be accessible by trained, trusted individuals.

The lack of control of these mechanical key systems threatens the security of the world's transportation infrastructure, from small towns to the largest metropolitan areas. Aside from the critical issue of key control, mechanical locks are susceptible to lock picking and key slot damage, rendering them useless. In short, mechanical locks and keys are not sophisticated enough to meet the needs of the transportation industry.

Key-Centric Access Control

Key-centric access control systems combine the precision of electronic systems with the ease of installation, affordability, and usability of mechanical locks and keys. Electronic locks and keys offer the ability to control access to critical equipment without the need to run cables to power the lock. Instead, the battery in the smart key powers the lock cylinder, eliminating the need to manage and replace the battery in the lock.

KEY-CENTRIC ACCESS CONTROL IS THE
IDEAL SECURITY SOLUTION FOR THE
NEEDS OF TRANSPORTATION DEPART-
MENTS ACROSS THE COUNTRY





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Reducing key control problems, smart keys are programmed for individual users' access rights. If the key is lost or stolen, it can be easily disabled in the system without the need to re-enter the key. It is enough to mark the key as lost in the software and communicate this information to the lock. If access is attempted, the key can no longer be operated. Each lock and key stores every access attempt, allowing managers to view an audit trail of who has entered or attempted to enter a particular location. Key-centric access control is the ideal security solution for the needs of the nationwide transportation sector.

Protecting infrastructure is critical because even a simple failure can have devastating consequences. Mechanical locks and keys have significant limitations and are simply not suitable for this industry. Vanma's electronic locks and keys combine the best of both systems and provide an ideal solution for the transportation industry.