Using Kaspersky solutions in systems that integrate built-in POS terminals and payment terminals in Gasoline dispensers

Providing support for a wide range of operating systems such as Windows XP, ensuring robust and long-lasting security, and solving all challenges around performance

TATSUNO

In Innovation, In Reliable Services

2021

kaspersky

BRING ON
THE FUTURE

Kaspersky
Embedded System
Security

Tatsuno Corporation

A long-established manufacturer that ranks as one of the world's three largest producers of Gasoline dispensers. The company decided to implement Kaspersky products for PCI DSS-compliant security measures in the payment terminals built into its Gasoline dispensers, ensuring security without having to change its hardware designs.

> "Our customers use our products over longer periods of time. We believe Kaspersky is the perfect solution in terms of ensuring the security of these devices."

Keiji Kitami,
Assistant General Manager of
Designing Department
Tatsuno Corporation

About Tatsuno Corporation

Tatsuno Corporation was founded in 1911 and in 1919 produced the first gasoline dispenser in Japan. Since then, the company has grown internationally and has group companies, partner companies and distributors in numerous countries all around the world. TATSUNO do not only concentrate on gasoline dispensers but also on dispensers for clean fuels such as LPG, CNG, LNG and hydrogen.

· Founded in 1911

· Head office in Tokyo, Japan

· tatsuno-corporation.com

· Using Kaspersky Embedded Systems Security

Tatsuno Corporation wanted to implement security for the payment terminals built into the Gasoline dispensers it manufactures and sells, and found that Kaspersky products for embedded systems solved all of the issues it encountered.

Key targets when implementing security:

· High-performance when running on low-end hardware
· Compatibility with a wide range of Windows operating systems, such as Windows XP
· Adaptability to extended product life cycles

"We are a member of the Petroleum Association of Japan, which is taking steps to prevent credit card fraud and ensure security. To that end, we needed to ensure the security of the payment terminals built into our Gasoline dispensers," explains Mr. Keiji Kitami, Assistant General Manager of Tatsuno's Designing Department.

The Petroleum Association of Japan was established as an association of companies engaged in the importation, production and nationwide sale of petroleum in Japan. In 2018, the association formulated its "Guidelines for Handling IC credit card Transactions at Japanese Gas Stations" (the "Association Guidelines") and has notified them to take measures to prevent payment card-related fraud by the deadline. At that time, PCI DSS (Payment Card Industry Data Security Standard), which is an international standard for credit card information protection, was also promoted.

The Association Guidelines require members to build and maintain secure networks and systems, protect cardholder data, put in place programs that manage vulnerabilities, introduce robust access control methods, conduct regular network auditing and testing, and establish information security policies.

Payment card-compatible payment terminals built into Gasoline dispensers need to have robust security in order to comply with the Association Guidelines.

"The Gasoline dispensers work in conjunction with a variety of systems and devices," Mr. Kazuhiro Sakuma, an Assistant Manager of Tatsuno's Designing Department.

The embedded systems installed in its Gasoline dispensers operate using minimal hardware specifications, so certain software operation may be limited by older operating systems.

"Some of the terminals are controlled using Windows XP. We had a very hard time finding a security solution that would work well for a variety of operating systems," recalls Mr. Sakuma.

**Kaspersky
Embedded System
Security**

A security product designed to protect embedded systems against the attacks that target them.

The company started testing out the security tools available on the market. However, issues arose, such as insufficient storage capacity and sluggish operation due to not meeting the recommended system requirements.

"Changing the components of an embedded system is costly, so it's a difficult undertaking," says Mr. Hiroyuki Tsuji, Manager in the Designing Department.

Since the payment terminals built into the Gasoline dispensers are used outdoors, they need to be highly environmentally resistant. The high-quality parts we use have a big impact on the cost of the equipment.

This is why we decided to look for a security tool that fits the four following criteria:
· Can be installed on low-end hardware;
· Is lightweight;
· Runs on a variety of Windows operating systems;
· Is suitable for extended product life cycles.

The only product that met all of these criteria was Kaspersky Embedded Systems Security," recalls Mr. Tsuji.

Kaspersky solution

"We didn't have much time to spare, as we had to comply with the Association Guidelines by March 2020. Through testing, we found that Kaspersky Embedded Systems Security met our requirements.

What clinched it for us was the fact that we could seamlessly install Kaspersky Embedded Systems Security on Gasoline dispenser payment terminals that were using Windows XP and had an extremely limited storage capacity.

By using Kaspersky Embedded Systems Security to prevent the running of any executable files other than those we explicitly allow, we were able to meet the requirements of the Association Guidelines while only making minimal changes to the existing terminals," explains Mr. Kitami.

"I was concerned that the manual and other documents were only available in English. But the support was incredible, and they provided us with instructions in Japanese. The fact that we were able to communicate effortlessly if we had any problems was also very reassuring."

Kaspersky Embedded Systems Security can also be installed silently on the existing payment terminals built into the Gasoline dispensers. "This enabled us to install Kaspersky for existing customers as and when they ran a software update on their terminals. With silent installation, Kaspersky Embedded Systems Security could be installed on terminals without any action required on the customer's part, so that was a significant merits," recalls Mr. Sakuma.

What's next

"We were able to quickly ensure the security of embedded devices, despite not having much time in which to comply with the Association Guidelines. We were able to ensure security with almost no changes to the existing system, thereby minimizing manual labor.
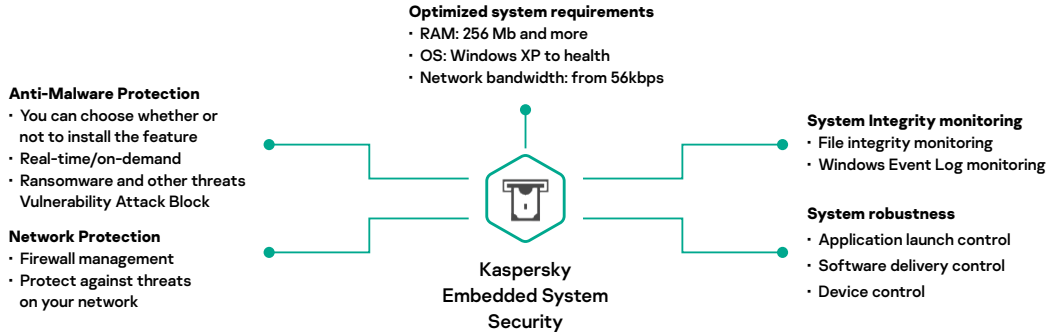
Now that we've installed Kaspersky in the payment terminals built into Gasoline dispensers, we're planning to gradually roll it out to other systems such as our POS systems as well, in order to keep them secure," says Mr. Tsuji.

A message from Kaspersky

Kaspersky Embedded Systems Security is a solution that ensures the security of Windows-based embedded systems, and is designed to work on low-end hardware and outdated operating systems such as Windows XP, which is no longer supported by Microsoft. This solution consists of a unique and comprehensive set of protective components such as anti-malware, application and device control, firewall management, File Integrity Monitoring (FIM), and Windows Event log monitoring, to identify and block malicious activities within the system and detect various signs of a security breach. This enables companies to meet the compliance requirements for regulations such as PCI DSS and SWIFT.

Optimized system requirements
· RAM: 256 Mb and more
· OS: Windows XP to health
· Network bandwidth: from 56kbps

Anti-Malware Protection
· You can choose whether or not to install the feature
· Real-time/on-demand
· Ransomware and other threats Vulnerability Attack Block

Network Protection
· Firewall management
· Protect against threats on your network

System Integrity monitoring
· File integrity monitoring
· Windows Event Log monitoring

System robustness
· Application launch control
· Software delivery control
· Device control

Kaspersky Embedded System Security

Many Windows-powered industrial devices and embedded systems in factories face similar challenges to Tatsuno's Gasoline dispensers. Ensuring the security of these devices is a major issue for manufacturers. Kaspersky Embedded System Security is the answer to these issues.

Cyber Threats News: www.securelist.com
IT Security News: business.kaspersky.com

kaspersky.com