CASE STUDY

Embedded Whitelisting Meets Demand for Cost-Effective, Low-Maintenance, and Secure Solutions

McAfee® Embedded Control frees Hitachi KE Systems’ customers to focus on production, not security

Case Study

Hitachi KE Systems, a subsidiary of Hitachi Industrial Equipment Systems, part of the global Hitachi Group, develops and markets network systems, computers, consumer products, and industrial equipment for a wide variety of industries. Hitachi KE meets the needs of customers who seek high quality yet cost-effective, low-maintenance systems for their operational technology (OT) environments—they don’t want to have to think about security at all.
In addition to the custom tablet and touch panel terminals and other hardware and software Hitachi KE sells, the Narashino, Japan-based company, also offers a one-stop shop for its solutions—from solution construction (hardware and software development) to operation and integration to maintenance and replacement. To provide the best solutions across this wide spectrum of offerings, the company often turns to partners to augment its technology.

“To expand our Internet of Things [IoT] solutions and operational features and functionality, we enhance our own products and systems with the latest digital and network technologies,” says Takahide Kume, an engineer in the Terminal Group at Hitachi KE. “We strive to provide the technologically optimal as well as most cost-effective solution for our customers.”

**Highest Customer Concern: Production**

Although the risk of a zero-day attack in their OT environments has increased dramatically as IoT has become commonplace, most of Hitachi KE’s customers do not have information security personnel on staff. For them, the only thing that counts is production. Does the technology solution enable faster, higher-quality, or more cost-effective production?

“Despite many malware-related incidents in the news, many of our customers honestly don’t care as much as they should about cybersecurity,” acknowledges Kume. “We have to educate their management that lack of security, if malware strikes, could seriously hurt production and business in general. Thankfully, making that point is becoming easier and easier with malware incidents on the rise.”

“We decided that embedded whitelisting was the best solution for reduced operating cost and high security in an OT environment... We felt McAfee offered the best long-term support and the highest quality technical support.”

—Takahide Kume, Engineer, Hitachi KE Systems

**Best Solution for Minimal Overhead Yet High Security**

Even before its customers began to catch on to the need for secure solutions, Hitachi KE began looking for a way to build security into its systems that have Microsoft Windows, Linux, and Google Android operating systems and often multiple versions within the customer’s environment. “Because our customers often lack security personnel, security must be extremely easy and basically run itself,” explains Kume “When a system is infected in the field, the person on the front line usually can’t do anything about it.”

“We decided that embedded whitelisting was the best solution for reduced operating cost and high security in an OT environment,” adds Kume. After examining leading whitelisting solutions, Hitachi KE chose McAfee® Embedded Control software.
“We felt McAfee offered the best long-term support and the highest quality technical support along with robust security,” he continues. “With McAfee Embedded Control installed, no one has to take care of the system in the field... Industrial systems are often set and left alone for a long time—they can be overtaken by malware without anyone realizing it. For such systems, McAfee Embedded Control is the best solution.”

McAfee Embedded Control maintains the integrity of Hitachi KE systems by only allowing authorized code to run and only authorized changes to be made. It automatically creates a dynamic whitelist of the authorized code on the system on which it resides. Once the whitelist is created and enabled, the system is locked down to the “known good” baseline, thereby blocking execution of any unauthorized applications or zero-day malware attacks.

**Almost Maintenance-Free** Solution Reduces TCO

Users of Hitachi KE Systems with McAfee Embedded Control can easily configure the machines, specifying exactly which applications and actions that will be allowed to run and who has authority to make modifications in the future. The minimal impact of the McAfee software on performance also means fewer problems to troubleshoot.

“McAfee Embedded Control is an almost maintenance-free solution,” says Kume. “It is extremely easy to update when needed and doesn’t require our customers to have a security expert on staff. Minimal maintenance lowers the total cost of ownership for our customers.”

Even if security hasn’t been their top priority, Hitachi KE customers have been very pleased with the addition of McAfee Embedded Control to their solutions. “Having McAfee security built in gives our customers and end users peace of mind that they can connect our systems to the Internet,” says Kume. “McAfee has had many success stories within the Hitachi Group, and this is just one of them.”

**“Having McAfee security built in gives our customers and end users peace of mind that they can connect our systems to the Internet.”**

—Takahide Kume, Engineer, Hitachi KE Systems