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Embedded Security Facilitates Networked Collaboration for Interactive Whiteboards

Security for Current and Future Product Configuration

Ricoh Co., Ltd.

Fustomer Profile
Worldwide manufacturer of advanced office automation equipment

Industry
Manufacturing

IT Environment
107,000 employees across 227 global affiliates

Founded in 1936, Ricoh Co., Ltd. is a global provider of leading-edge office automation equipment including copiers and fax machines. With headquarters in Tokyo, Ricoh operates 227 affiliates in 200 countries worldwide and has more than 107,000 employees.

Business Challenge: Seamless Security for Interactive Whiteboards

In today's world of visual communications, Ricoh has expanded its product focus beyond paper-based office devices. Today, the company is committed to providing solutions that enable people across multiple locations to communicate and collaborate effectively using high-quality images. One such solution is Ricoh's line of interactive whiteboards that allow meeting participants to write and draw images that can be easily shared with other team members over a network. Global users are able to exchange and view information in real time as if they were in the same room, greatly enhancing workflow efficiency.

Security is a critical concern for any networked business solution, and Ricoh realized it needed to protect the whiteboards from virus infections—whether introduced through the connected network or through attached devices such as USB flash drives. However, Ricoh needed to provide this protection without complicating their product. Installing traditional antivirus software based on the "blacklist" method would remove some simplicity since it would require ongoing management and IT intervention to keep the virus definition files and detection engine up to date. At the same time, Ricoh needed their whiteboards delivered in the same state—including security functions—that they were originally tested before shipment.

"We poured great energy into creating an appliance that could be used as soon as it was set up and that would provide a white screen within five seconds after it was powered on," said Tetsuro Nagatsuka, senior specialist at Ricoh. "Even if we repeatedly tune the product and increase the startup speed in its shipping state, those operating conditions cannot be guaranteed if the software configuration is changed by virus definition updates after shipment. A product that needs a specific administrator and regular file updates is not suitable as common-use office equipment."

Our Solution: Embedded Security Using a Whitelist

To meet these requirements, Ricoh chose McAfee® Embedded Control. A robust security solution based on a whitelist approach, McAfee Embedded Control defines and executes only pre-registered and pre-authorized applications. Since non-authorized applications are blocked from running, the risk of virus infection is drastically reduced. And, because the whitelist can be configured at the time of product shipment, little or no security management or updating is necessary after the whiteboard enters service.

Seamless Security Configuration

"We evaluated several security products that use the whitelist method, but found that other products required management servers inside the company or on the Internet," said Nagatsuka. "We sought a solution that could be configured at the time of shipment, function independently, and automatically update the application and whitelist at the same time. Only McAfee Embedded Control met these requirements."

Challenges

- Provide embedded security to protect business content displayed on networked whiteboards.

McAfee Solution

- McAfee Embedded Control

Results

- Whitelist approach provides comprehensive security while facilitating rapid startup and use.

- Whiteboards can be shipped with security pre-configured and without requiring later updates that might affect performance.

- McAfee Embedded Control offers scalable security to support future product enhancements.

Benefit: Security for Current and Future Product Configurations

With McAfee Embedded Control, Ricoh is able to tune its interactive whiteboards to optimal performance before they leave the factory—allowing the company to deliver an appliance that is operational within five seconds after startup. "Because McAfee Embedded Control ensures ongoing security without modifying the original shipping state, our interactive whiteboards can be shipped with the performance they need for wide adoption," said Nagatsuka. "Without the McAfee solution, we might not have been able to offer these groundbreaking systems."

Moving forward, Ricoh is planning enhancements to the interactive whiteboard line that will make security an even greater necessity. One example is linkages to document management services and multifunction copiers to enable the whiteboards to display content held on those systems. "McAfee Embedded Control will have a huge impact on the future evolution of our products and will enable us to enhance them without compromising security," said Nagatsuka.

"Our whiteboards can be used with no training, immediately after setting them up and turning them on. This is the sort of office appliance we pursue, and McAfee Embedded Control has paved the way for its simultaneous convenience and security."

—Tetsuro Nagatsuka, Senior Specialist

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