

# Host-based Protection for ATM's

Who should read this paper

ATM manufacturers, system integrators and operators.

## Content

<b>Introduction .....</b>	<b>1</b>
<b>Symantec™ Embedded Security: Critical System Protection.....</b>	<b>1</b>
<b>System Hardening and Application Control.....</b>	<b>2</b>
<b>Intrusion Detection.....</b>	<b>2</b>
<b>Deployment .....</b>	<b>2</b>
<b>Beyond Host-based Protection.....</b>	<b>2</b>

### Introduction

Automated Teller Machines (ATM's) are one of the most highest value customer touch points in in the banking industry. Customers are demanding extra services and more user-friendly interfaces. Banks are demanding more cost effective solutions for interfacing with their customers. ATM's now need increased flexibility to meet customer expectations and so are becoming more capable and connected than ever before.

Providing a direct interface to cash inevitably makes ATM's a target in a numerous and sophisticated ways with new methods being regularly exposed. Attack methods extend from physical (such as skimming and pin cameras) to virtual through malware. Above all, the customer must trust the ATM. Assuring integrity from the very start of the supply chain through to the installers and operators are essential.

Banks and ATM operators must protect their ATM's and meet their compliance obligations for operating in a heavily regulated industry sector. But doing so can be challenge. ATM's can be considered a single use device, they have a dedicated function, run a specific application with predictable input and output. Yet ATM's are frequently built using common operating systems such as Microsoft Windows, capable of so much more than required. They are subject to vulnerabilities and often exploited in similar fashion to a laptop or workstation.

### Symantec™ Embedded Security: Critical System Protection

Symantec™ Embedded Security: Critical System Protection can help. It provides a policy-driven host based, least privilege approach to endpoint security and compliance.

Symantec™ Embedded Security: Critical System Protection has two enforcement components that can be independently activated on ATM systems, prevention and detection. The prevention component has proactive enforcement rules that can stop malicious activity before it occurs, the detection component monitors for system activity as it occurs and can trigger event based actions. Both components provide granular control over logging using policy settings to give visibility into actionable events as well as the efficient management of high volume events necessary for regulatory or forensic purposes. Thus, in combination, the two components provide unique capabilities to both secure a system and to address regulatory compliance requirements. This includes regulations such as PCI-DSS that requires companies to deploy file integrity monitoring for critical system and application files changes. Detecting that an important operating system binary like svchost.exe was recently modified is very different from preventing the modification in the first place. Symantec™ Embedded Security: Critical System Protection lets you configure and use both detection and prevention as needed to address your auditing, compliance, and security requirements.

Protection	Detection
Intrusion Prevention	Real-Time Monitoring & Auditing
Intrusion Detection	Intrusion Detection
System Hardening	File Integrity Monitoring
Application Whitelisting	Configuration Monitoring
Application Sandboxes	User Access Tracking
Vulnerability & Patch Mitigation	Logging & Event Reporting

### System Hardening and Application Control

Controlling what applications can run on your ATM devices is one of the most vital steps to protecting against unauthorized access and attack. Symantec™ Embedded Security: Critical System Protection policies provide thousands of pre-built rules that comprehensively monitor and harden the operating system of enterprise systems and require minimal tuning. Memory controls detect buffer overflows and unusual memory allocation and permissions complimenting an effective device hardening strategy. Single use devices such as ATM terminals perform predictable functions, meaning the device should always be in a known state, with known applications performing known behavior. Symantec™ Embedded Security: Critical System Protection can be configured to enforce application whitelisting, ensuring only predefined programs can be executed with specific attributes controlling the manner in which they are called. Furthermore, program execution can be contained within a sandbox, allowing strict control over the behavior of the application. This is particularly useful where operating system permission levels allow unnecessary actions to be carried out. Privilege de-escalation can be configured, ensuring that even an Admin user account can have its ability constrained to the minimum functions necessary for the device purpose.

Adding another layer of security to your defenses, Symantec™ Embedded Security: Critical System Protection provides rules based system level and as well application level firewalls to block network-based attacks against your ATM's. The firewall lets you restrict which applications on ATM systems can communicate on the network, which ports they can use, and what they are allowed to talk to. To circumvent network restrictions and application controls, some cybercriminals will try to steal credit card data through physical access to an ATM. As ATM's become more advanced with computer-like characteristics, the methods for unauthorized physical access often increases. Symantec™ Embedded Security: Critical System Protection enables you to block and granularly control devices connected to your ATM systems' communication interfaces, such as USB ports. It can prevent all access to a port or only allow access from certain devices.

### Intrusion Detection

The Symantec™ Embedded Security: Critical System Protection detection policies monitor files, settings, events and logs, and report anomalous behavior. Features include sophisticated policy-based auditing and monitoring; log consolidation for easy search, archival, and retrieval; advanced event analysis and response capabilities. To further harden the device it provides a combination of file integrity monitoring and registry integrity monitoring.

### Deployment

Symantec™ Embedded Security: Critical System Protection can be deployed in managed and standalone mode. This is particularly useful for device manufacturers who create an out of the box security policy for their product ensuring the device is adequately hardened from the moment it is activated. Manufacturers, integrators and device operators may choose to deploy the agent after market on devices being newly deployed or previously installed. Administrators can opt for configurations where the agent will communicate with the management console for policy updates and reporting providing real time visibility of your security posture. Symantec™ Embedded Security: Critical System Protection supports modular installation of components, deploying only the code required to perform the protection and/or detection functions as defined in the agent configuration. This allows manufacturers and device operators to efficiently deploy in resource-constrained environments.

### Beyond Host-based Protection

Controlling what can and can't be run on a machine is only part of the ATM protection story. Best practices like code signing and protection, secure management, authentication and encryption all play a part in a robust ATM security strategy. To find out more about protecting ATM's and single use devices visit <http://www.symantec.com/iot>

## About Symantec

Symantec Corporation (NASDAQ: SYMC) is an information protection expert that helps people, businesses and governments seeking the freedom to unlock the opportunities technology brings – anytime, anywhere. Founded in April 1982, Symantec, a Fortune 500 company, operating one of the largest global data-intelligence networks, has provided leading security, backup and availability solutions for where vital information is stored, accessed and shared. The company's more than 19,000 employees reside in more than 50 countries. Ninety-nine percent of Fortune 500 companies are Symantec customers. In fiscal 2015, it recorded revenues of \$6.5 billion. To learn more go to [www.symantec.com](http://www.symantec.com) or connect with Symantec at: [go.symantec.com/socialmedia](http://go.symantec.com/socialmedia).

For specific country offices and contact numbers, please visit our website.

Symantec World Headquarters  
350 Ellis St.  
Mountain View, CA 94043 USA  
+1 (650) 527 8000  
1 (800) 721 3934  
[www.symantec.com](http://www.symantec.com)

Copyright © 2015 Symantec Corporation. All rights reserved. Symantec, the Symantec Logo, and the Checkmark Logo are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. Other names may be trademarks of their respective owners.  
9/2015 21359121