Desktop Security Upgrade

How Cisco IT Upgraded Intrusion Prevention Software to Improve Endpoint Security

A Cisco on Cisco Case Study: Inside Cisco IT

Overview

- Challenge

  Protect 70,000 global desktops from constantly changing threats

- Solution

  Cisco Security Agent

- Results

  Increased security and lower IT resource requirements

- Next Steps

  Enforce new desktop security policies

Challenge

Protect 70,000 global desktops from constantly changing threats

- Adapt to new threat landscape

  2004: viruses, worms, trojans

  2008: spyware, botnets, rootkits, targeted attacks, social networking sites

  2010: not yet known

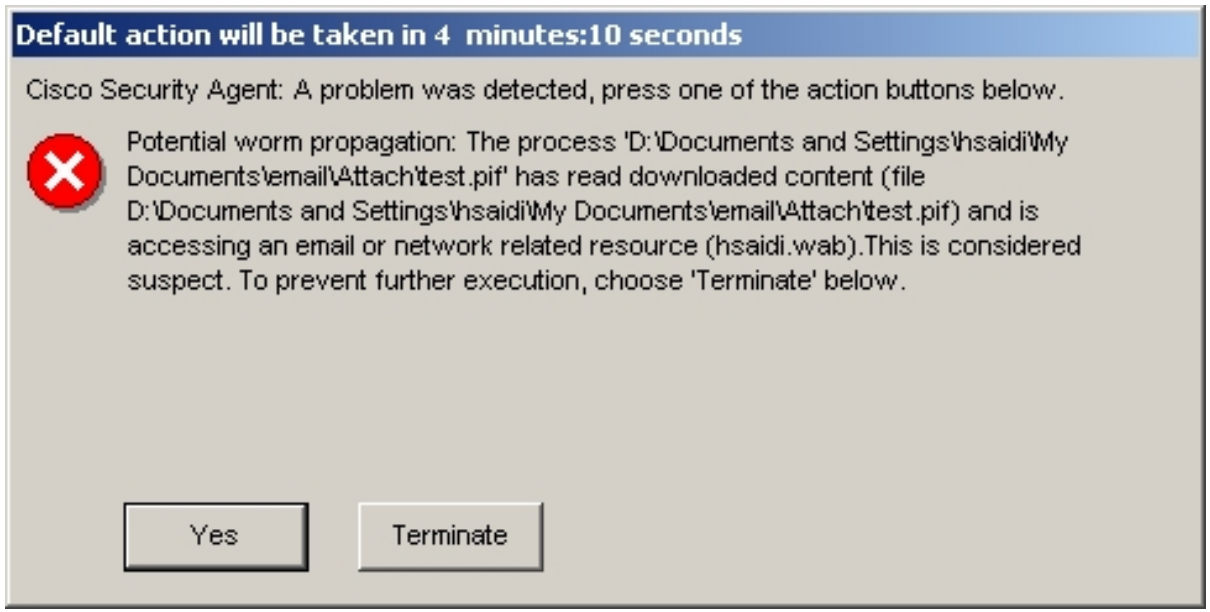
- Avoid high costs of remediation and cleanup: US$250K to $2.5 million per incident

- Diminish the rush to install patches for operating system and application vulnerabilities

Solution

Cisco Security Agent

- Looks for unusual application behavior and responds according to policy: allow, deny, or ask user



Solution

Predefined and Custom Policies

Management Center for Cisco Security Agents V5.2

Events Systems Configuration Analysis Maintenance Reports Search Help

	Compliance		is necessary for the cardholder data environment.
☐	PCI Requirement 1.3.9 Compliance - External Systems	4 rules	Installation of personal firewall software required on any mobile or employee-owned computers with direct Internet connectivity.
☐	PCI Requirement 1.3.9 Compliance - Internal Systems	5 rules	Installation of personal firewall software required on any mobile or employee-owned computers with direct Internet connectivity.
☐	PCI Requirement 10.2.1 - 10.2.4 Compliance	2 rules	Track and monitor all access to network resources and cardholder data.
☐	PCI Requirement 10.2.1 - 10.2.4 Compliance Userstate Admin	1 rule	Track and monitor all access to network resources and cardholder data (especially those with administrative privileges).
☐	PCI Requirement 10.5.1 10.5.2 User State	1 rule	Limit viewing of audit trails to those with a job-related need. Protect audit trail files from unauthorized modifications.
☐	PCI Requirement 10.5.1-10.5.5 Compliance	3 rules	Limit viewing of audit trails to those with a job-related need. Protect audit trail files from unauthorized modifications.
☐	PCI Requirement 11.4 Compliance	7 rules	Network intrusion detection systems, host-based intrusion detection systems/intrusion prevention systems to monitor networks

Solution

Deployment

- 400-user pilot
- Used Cisco Security Agent to profile five complex applications for expected application behavior
  - Did not need to profile all 10,000 applications in use at Cisco
- Defined policies, taking care not to require too many actions from users
- Deployed in enterprise
  - Pushed software to tens of thousands of employees worldwide in three weeks
- Deployed in manufacturing environment on 1200 test stations
  - Policy stipulates that test stations can communicate with centralized servers, not each other, to prevent infection spread

Solution

Central Management

- Browser-based Management Center distributes the agent to desktops, creates security policies, monitors alerts, and generates reports
- Initial deployment took approximately 65% of two engineers' time for two or three weeks
- Just two Cisco IT employees spend 10% of their time managing Cisco Security Agent when new policies are needed

Results

Increased Security

- Saved US$4 million annually on cleanup after attacks
- Reduced IT resource requirements from 12 full-time employees to fewer than one
- Diminished the rush to install patches
- Accommodated varying desktop security needs within the enterprise by applying stricter or less stringent controls

Next Steps

Enforce New Security Policies

- Control use of removable media
- Mark different types of desktop application traffic for special treatment
- Block and control IPv6 exposure on Windows Vista PCs
- Gather more information about application behavior to help plan other security tactics

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