



Cisco Tech Update
Security
Februar 2009



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Rasmus Kamper Mathiasen – Systems Engineer

Agenda

- **Cisco Security Strategy Moving Forward**
- **New Features in ASA, IPS and NAC**
- **Pause – 15 min**
- **Cisco Spam & Virus Blocker**
- **ACS**
- **CSA 6.0 1 Day Install**
- **Pause – 15 min**
- **CSA Live Demo**



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The Challenge Today

Countervailing Forces



Globalization



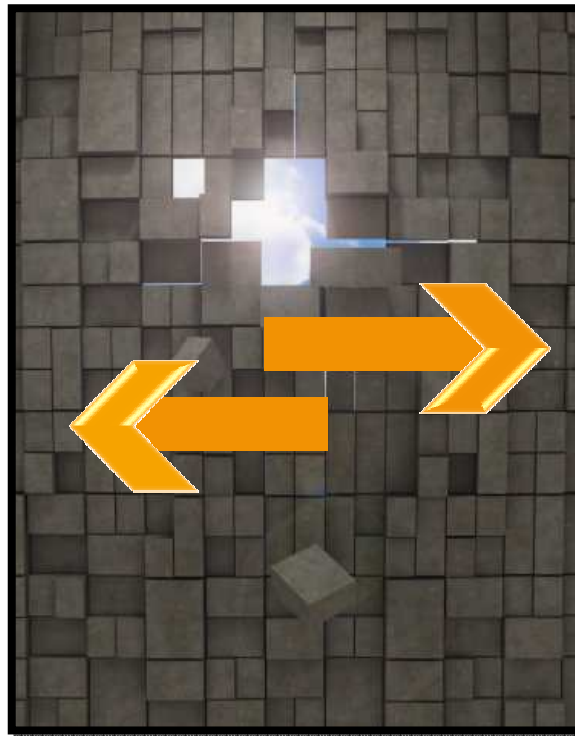
Mobility



Collaboration



Enterprise SaaS



Threats

Acceptable Use

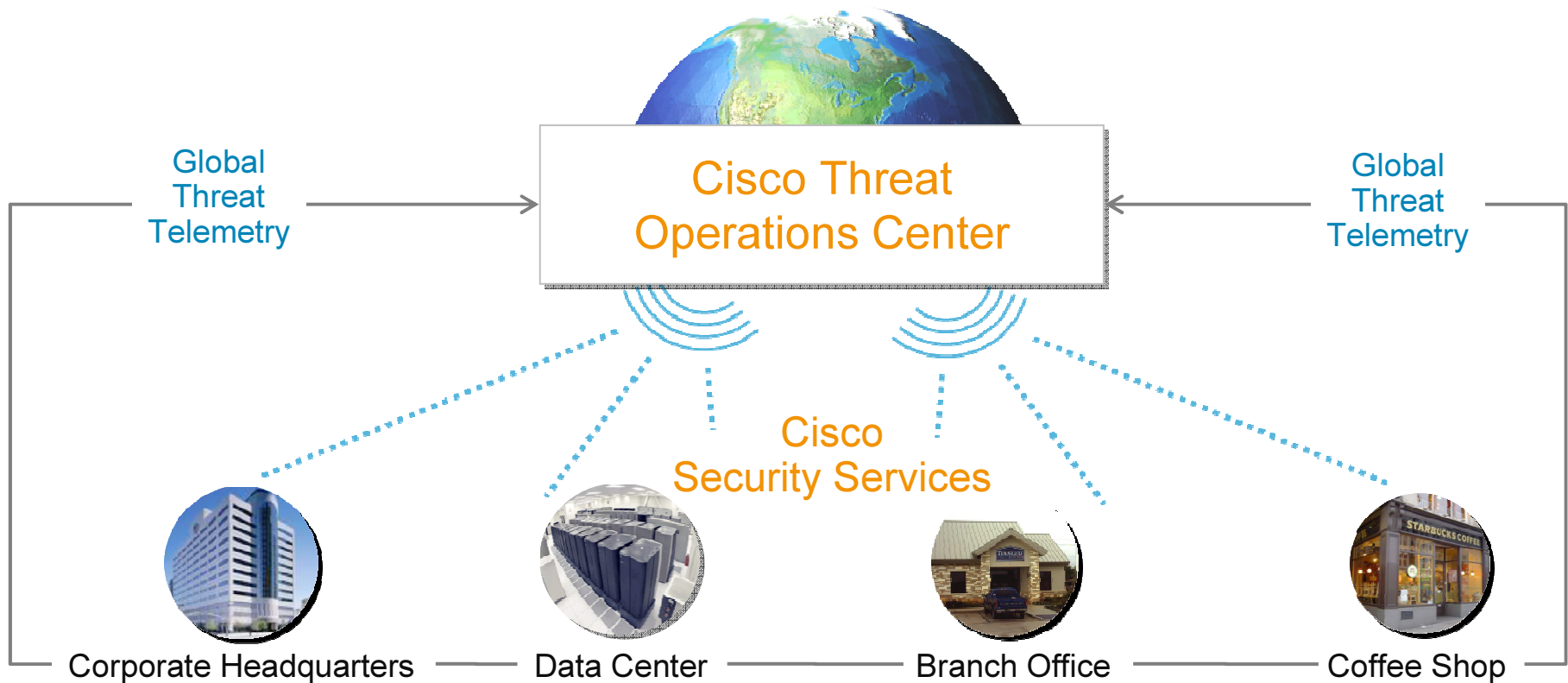
Privacy & Security Task Force ADVISORY
October 7, 2008

States Adopting Aggressive New Privacy
and Data Security Laws and Regulations

This advisory summarizes selected state legislative and regulatory developments.

Data Loss

Cisco Security Intelligence Operations



Security in every location
Security in every form factor



Appliance



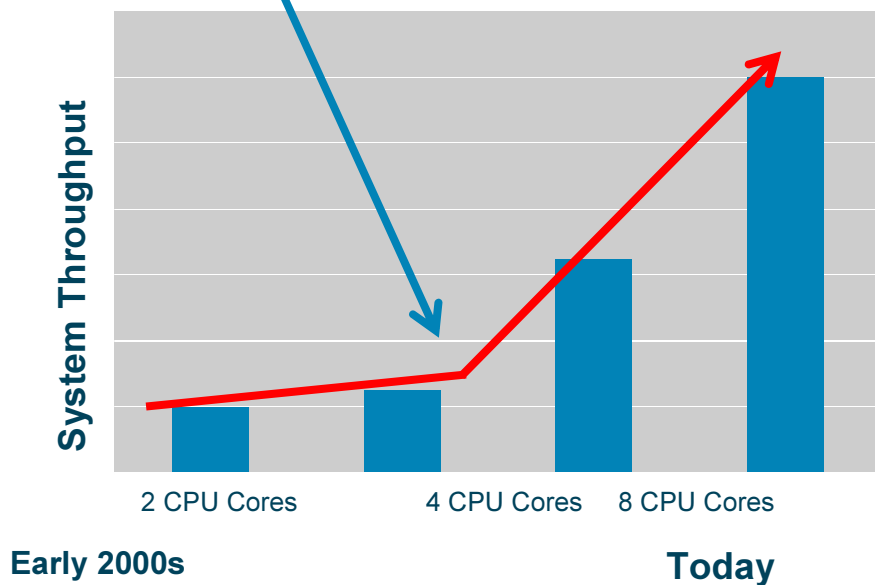
Security Module



Security Software

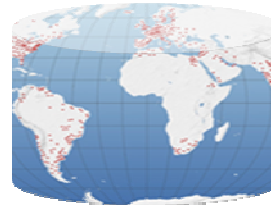
Fast and Accurate

Multi-Core Processors Introduced



Cisco Threat Operation Center

SensorBase Network



World's largest real-time traffic monitoring network

Security Modeling & Research



Sophisticated algorithms and actionable alerts

Threat Analysts



500 analysts, 5 global locations, Cisco Fellow, 80+ with PhDs or a Cisco certification

Cisco Security Products Overview

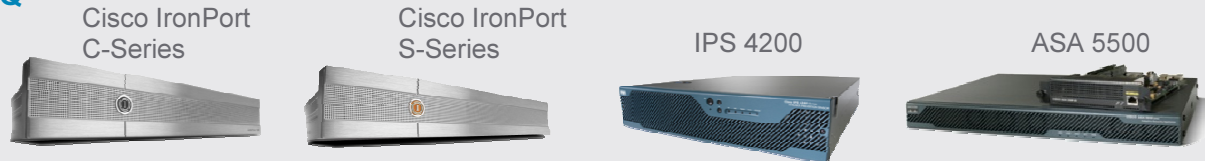
Comprehensive Security, Flexible Delivery



Data Center / Campus



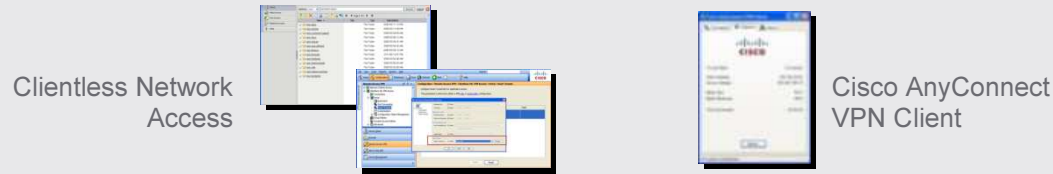
Corporate HQ



Branch Office



Teleworker



Cisco Security Intelligence Operations

Centralized Management

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AnyConnect Mobile

AnyConnect 2.3

- Windows Mobile 6.1, 6.0, 5.0
- Touch screen devices
- Secure remote access to enterprise applications from Windows Mobile

Enterprise VPN
application
access from
Windows
Mobile

Benefit



Apple iPhone VPN

Tunneling (Apple iPhone)

- Apple iPhone & iPod touch compatible
- Secure remote access to enterprise applications
- IPsec tunneling



Business Continuity Licenses

ASA 8.0.4 / VPN FLEX Licenses

- On average, 10-25% of VPN Remote Access users connect simultaneously
- Under exceptional circumstances, 90% of employees connect remotely
- Emergency situations, network outages, seasonal or event-based access

Affordable, flexible solution for short-term bursts of VPN users

Benefit

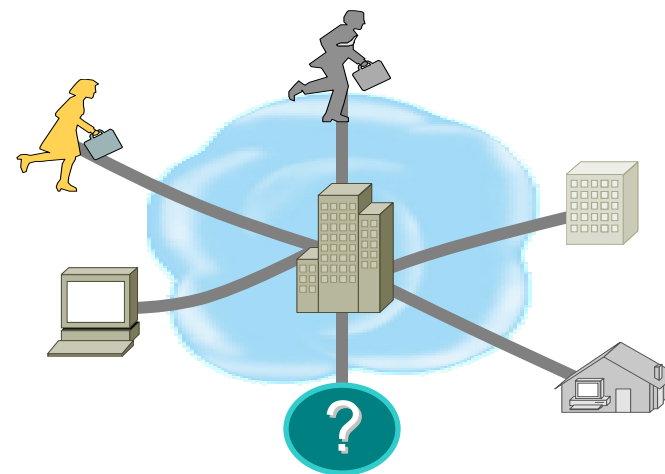
Business Continuity Licenses

ASA 8.0.4 / VPN FLEX Licenses

- Emergency & Pandemic scenarios
- Planned surges of concurrent SSL VPN users
- Address competition's burst licenses offering

Solution Offering:

- 2-month, tiered SSL VPN licenses
- Requires ASA 8.0.4+ / 8.1.2
- Available on 5510-5580



Scenario

ASA 8.0.4 / VPN FLEX Licenses

- Customer has an ASA with a 1000 user permanent SSL license. Customer experiences a snow storm and 1500 employees need to work from home. The customer can apply a 500 user VPN Flex License for 1 day and then revert back to permanent license the following day.
- In this example the customer would have 59 days remaining on that SSL Flex License. Once the counter reaches Zero on a SSL VPN Flex License the customer will need to purchase another Flex license.

Many Compelling Benefits for Migrating to Cisco ASA 5500 Adaptive Security Appliances

Adaptive Security Offers Better, Flexible Protection



- **Superior network protection** from ever-changing threats through IPS, CSC, etc.
- **Equal or better pricing** provides lower TCO
- **Better performance and scalability**, solutions scaling to 10+ Gbps
- **Flexible VPN solution** with market-leading SSL VPN capabilities

Mature, Next-Generation Security Solution



- **Built upon 10+ years of innovation** in Cisco PIX, VPN 3000, and IPS 4200 solutions
- **Hundreds of thousands** of Cisco ASA 5500 units deployed worldwide
- **GD quality software available** (v7.0.7+)
- **Common Criteria, FIPS, and NEBS-certified**

Leverages Customer's Existing Cisco PIX Investment



- **Cisco PIX knowledge directly transferable** to Cisco ASA 5500 Series
- **Consistent GUI and CLI interfaces** as Cisco PIX security appliances
- **Consistent syslog and SNMP monitoring**
- **Managed by Cisco Security Manager, MARS, and many third-party products**

Cisco ASA 5500 Series and Cisco PIX Security Appliances Feature Comparison

	Cisco PIX	Cisco ASA	Cisco ASA 5500 Benefit
Flexible Access Control , Both IP and User-Based			Cisco ASA 5500 Supports More ACLs due to Increased Memory
Advanced Application Layer Firewall Services for over 30 Popular Protocols			Cisco ASA 5500 Offers Better Deep Packet Inspection Performance
Security Services for Encrypted Voice / Video Communications			Only Cisco ASA 5500 Enables Secure End-to-End Encrypted Voice / Video Communications
Cisco Easy VPN and Site-to-Site IPsec VPN			Cisco ASA 5500 Provides Superior VPN Performance
Clientless SSL VPN and Cisco AnyConnect SSL VPN			Cisco ASA 5500 Provides World-Class, Flexible SSL VPN Access
VPN Clustering and Load Balancing Support			Cisco ASA 5500 Provides Enterprise-Class VPN Scalability
Full-Featured, Hardware Accelerated IPS Services			Cisco ASA 5500 Provides Superior Protection from Attacks
Anti-Virus, Anti-Spam, Anti-Phishing, and URL Filtering Services from Trend Micro			Cisco ASA 5500 Protects from Malware, Helping Increase Employee Productivity
Consistent Management and Monitoring			Leverage Cisco PIX Knowledge and Tools with Cisco ASA 5500

Cisco PIX -> ASA

Cisco provides increased incentives for migrating from Cisco PIX to the Cisco ASA 5500 Series products.

Customers can contact their Cisco channel partner or Cisco AM in order to obtain information on the financial benefits of migrating from PIX to ASA



What's to come? – ASA 8.2 Titan

ASA Software release 8.2 will be available for the ASA5500 platform in the near future, and will contain a series of new and updated features inline with Cisco's security strategy.

More to come in the near future on specific features and details about the release.



New!

IPS Software Version 6.2 and E3 Engine

Extending Cisco's Market-Leading Threat Protection to IPv6 Networks with Cisco IPS 4200 Series

Compliance

- Meet key government and policy mandates

Investment Protection

- Future-proof your network for IPv6

Deployment Flexibility

- Protect your IPv4 and IPv6 networks with a single IPS sensor

ASA 5500 Series IPS Solution

High Performance

- Matched IPS and firewall throughput up to 650 Mbps
- Hardware-accelerated IPS not impact firewall or VPN throughput

Network-wide Protection

- Powerful protection for data, voice, video, and wireless networks

Intuitive management

- All-in-one IPS Manager Express simplifies provisioning, monitoring, troubleshooting and reporting

Performance for Large and Small Organizations

Solution	Performance	
	IPS	FW
ASA 5510 with AIP SSM-10	150 Mbps	300 Mbps
ASA 5510 with AIP SSM-20	300 Mbps	300 Mbps
ASA 5520 with AIP SSM-40	450 Mbps	450 Mbps
ASA 5540 with AIP SSM-40	650 Mbps	650 Mbps

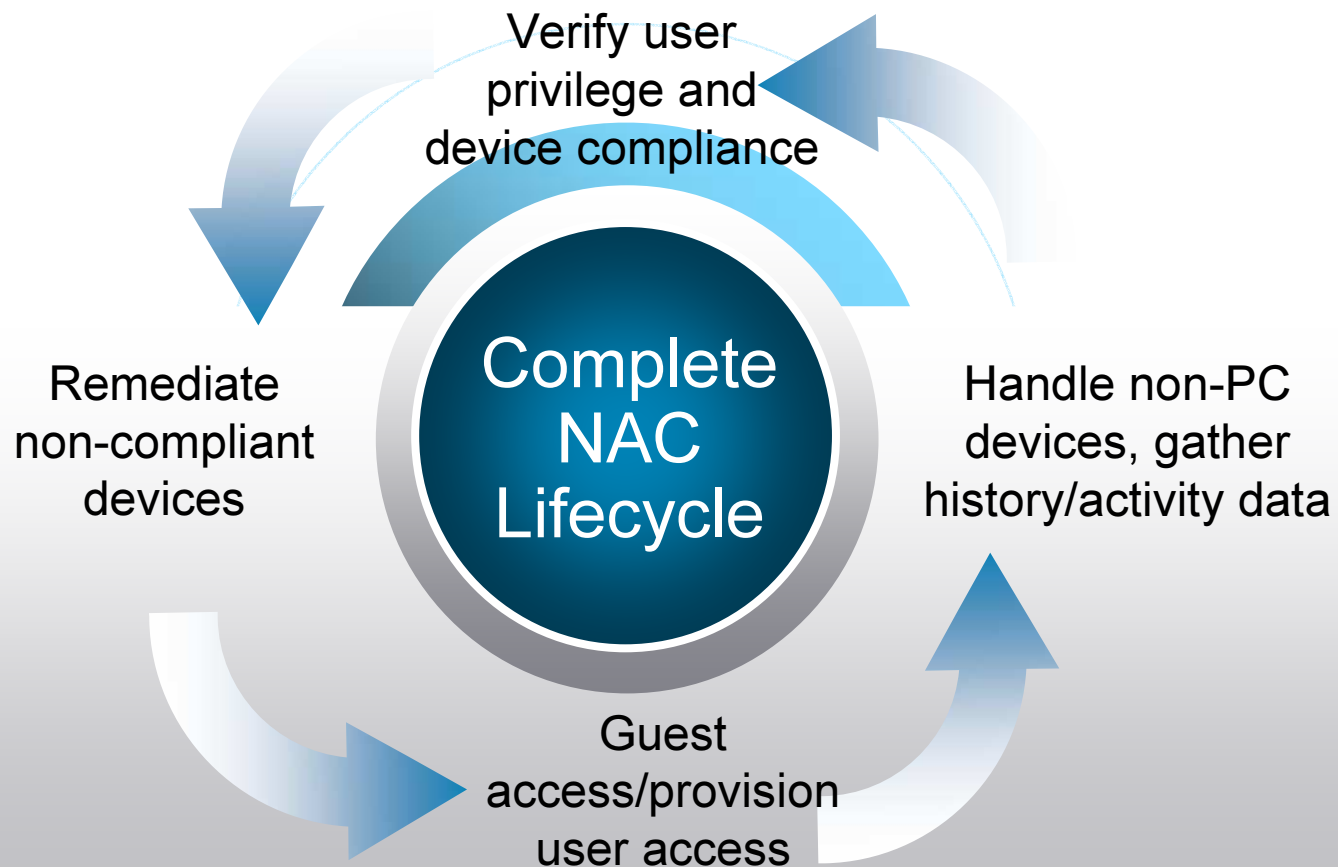
price drop!!

New Bundle!

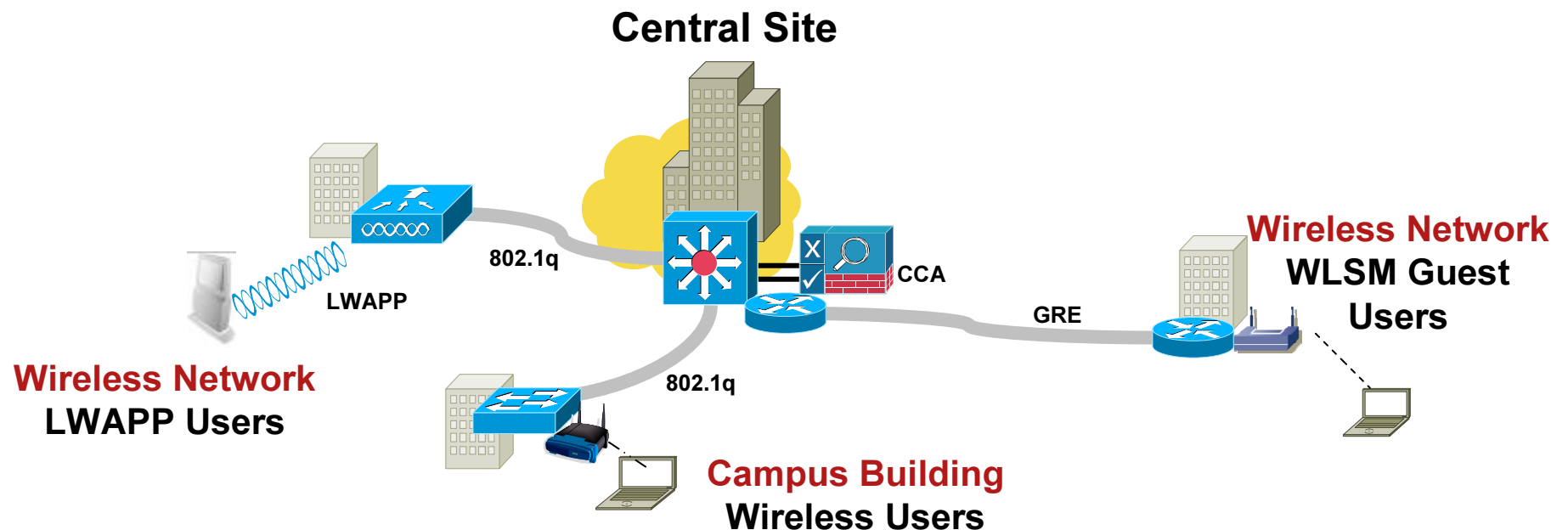


NAC Functions Defined

Ensuring role-based access and endpoint security policy compliance



Cisco NAC for Wireless Users



FEATURES	BENEFITS
<ul style="list-style-type: none"> ▪ Supports 802.1q trunking ▪ Supports thin or thick wireless 802.11 APs ▪ Supports Wireless user sign-on ▪ Supports Wireless Out of Band in version 4.5 	<ul style="list-style-type: none"> ▪ Enables central deployment mode ▪ End user devices can be several hops away ▪ Extends enforcement to any wireless networks ▪ Leverages EAP sign-on for single-sign-on

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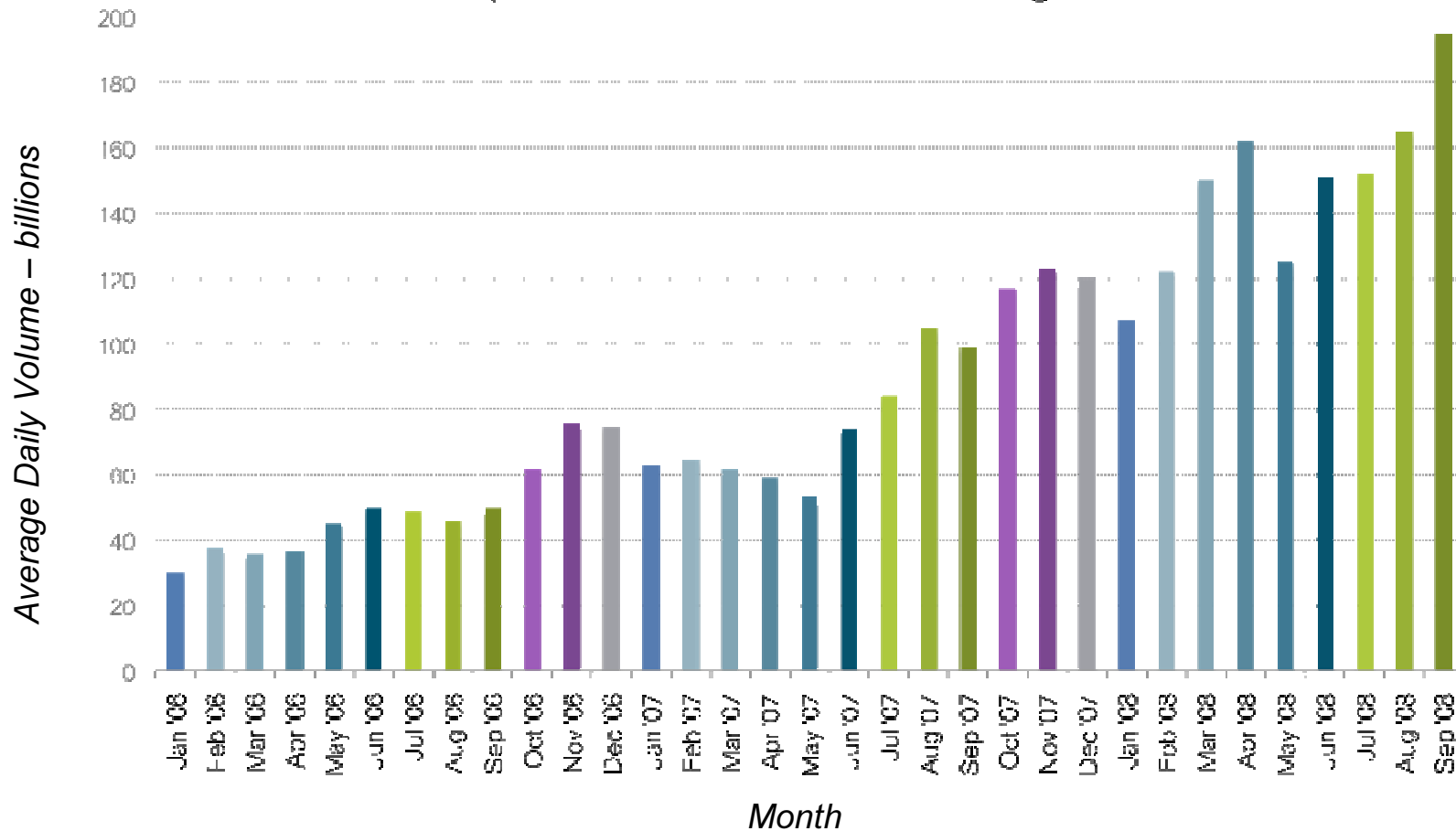
Cisco Spam & Virus Blocker





Spam Trends Through September 2008

Spam Volumes Double - Again



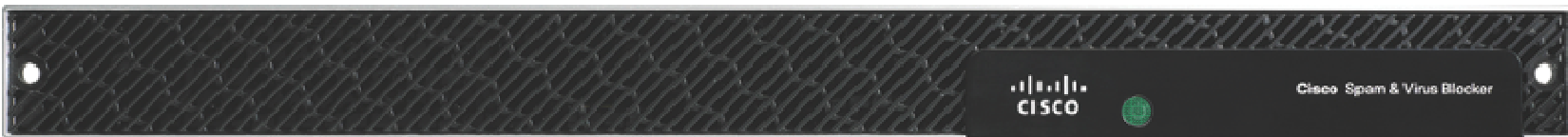


Product Overview



The Cisco Spam & Virus Blocker is a dedicated email security appliance for small business with up to 250 email users.

It provides powerful protection against spam, viruses and other email threats to secure your network and business data while improving productivity.

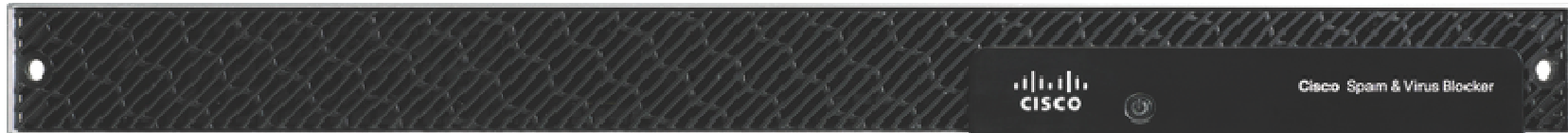




Always Protected



- Continuous automatic security updates without admin intervention – Enkelt køb inkluderer alt!
- Automatic connection to and threat updates from the SenderBase® network
- Additional support from Threat Operation Center security experts
- Immediate response to new, emerging and evolving threats
- “Set it and forget it” approach eases administration

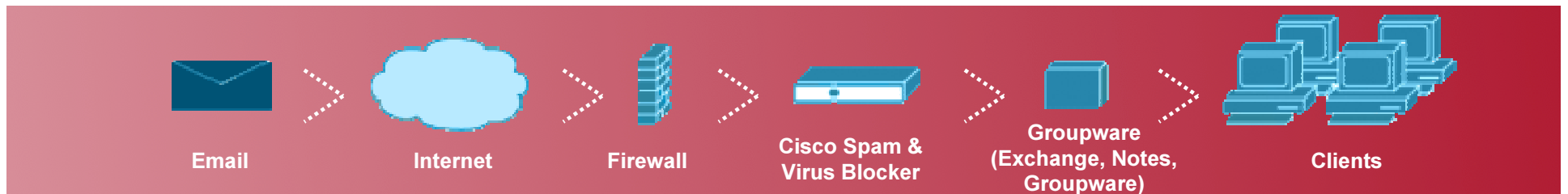




Benefit Highlight: Easy Installation and Use



- Quick and easy installation into most networks within minutes. (Starter med wizard og kan derefter tunes)
- Provides immediate protection out of the box once installed in network.
- Automatic threat updates to the appliance with no intervention required.
- Simple browser-based wizards support management and reporting.
- Per user policies inkl. content filtering.



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The next generation
Cisco Secure ACS 5.0



Powerful performance, complete visibility, simple to manage

Why should you care about ACS 5.0?

1. Simple & powerful rule-based policy model

Attribute-driven model provides greater flexibility in addressing policy needs

Authorization is not limited by group membership

Allows dynamic policies and “compose-able” ID solutions

2. Simple & visible

Intuitive Web-based GUI

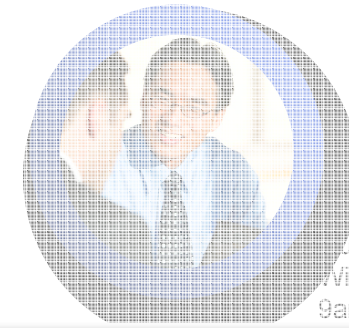
Easy to control and master

Comprehensive monitoring, reporting & troubleshooting

ACS 5.0 currently supports many but not all access scenarios

Please evaluate ACS 5.0 and ACS 4.2 before making a purchase decision

Nowadays The Human Network @ Work



Frank Lee
Guest
Wireless
9am

Coming up...

Even more complex dynamic policies

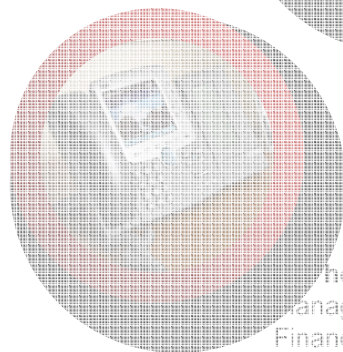
Greater need for flexible & “compose-able” ID & access solutions

And ever changing compliance regulations...

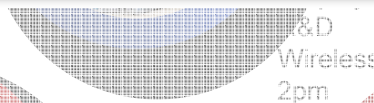


Sergei Balazov
Contractor
Wireline
10am

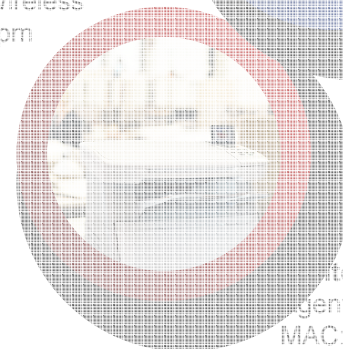
10pm



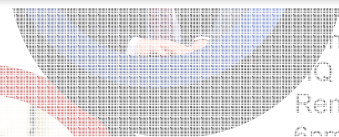
Mobile GW
Managed asset
Finance dept.
12:00pm



R&D
Wireless
2pm

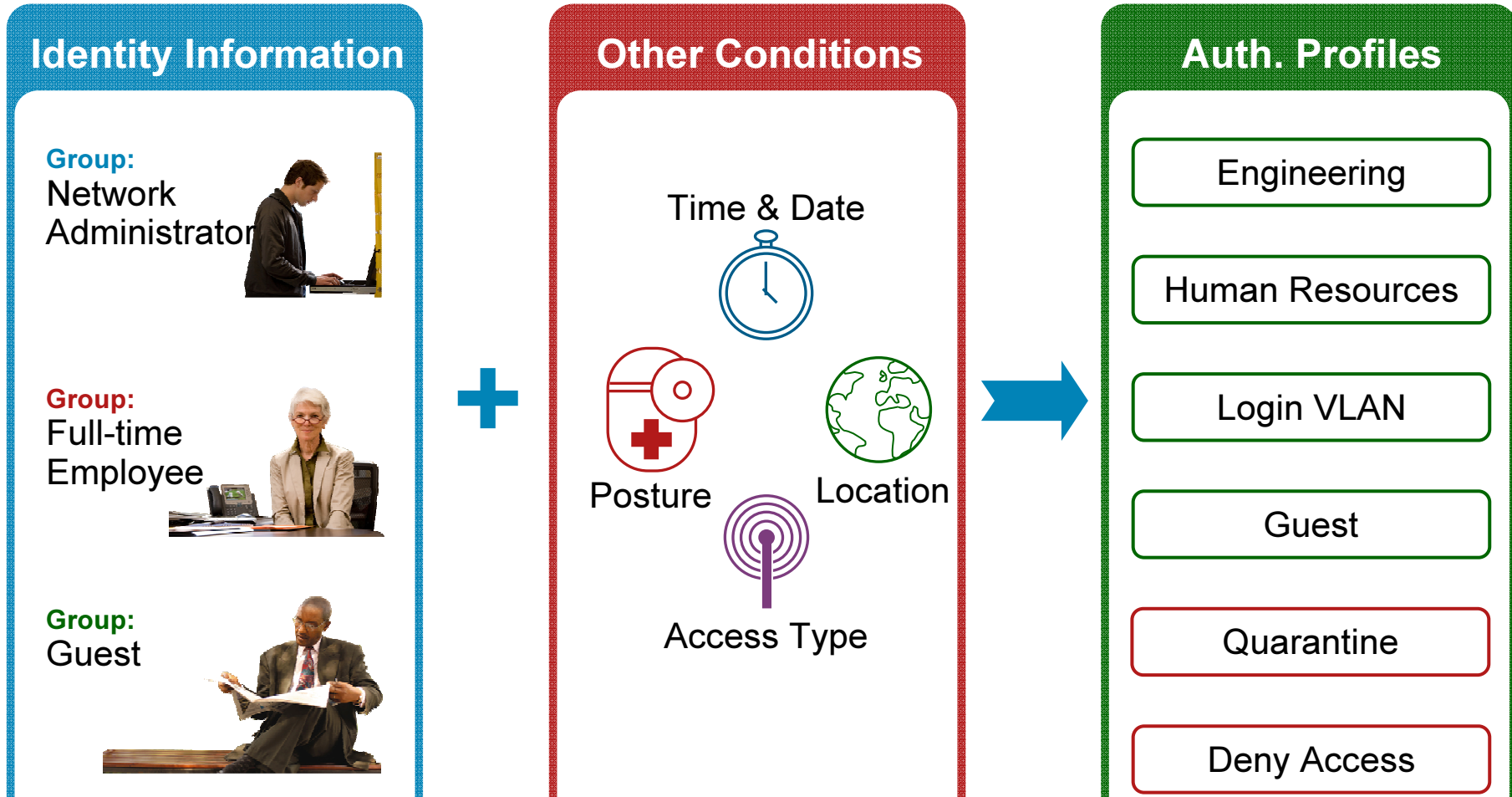


Senior
Wireless asset
MAC: B2 CF 81 A4 02 D7



Senior Director
Consultant
HQ - Strategy
Remote Access
6pm

ACS 5: Rule-based policy



Authorization based on identity plus context

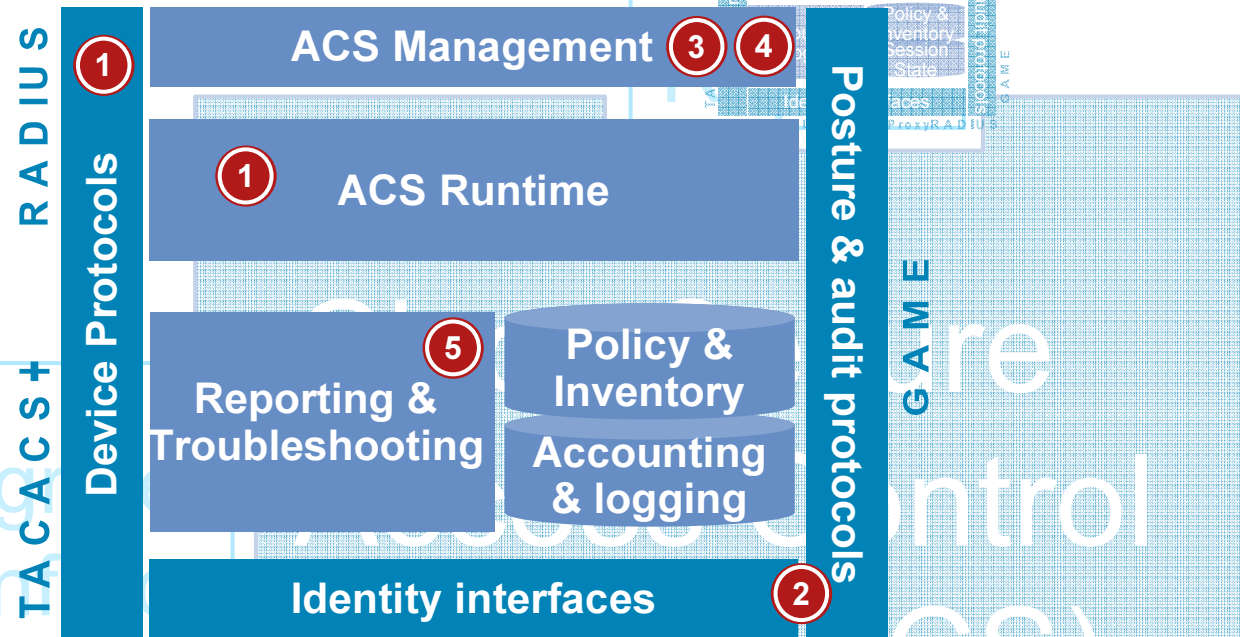
Conditions are specified as policy rules - IF <conditions> THEN <permission>

Cisco Secure Access Control System (ACS)

Connecting all elements of your network identity

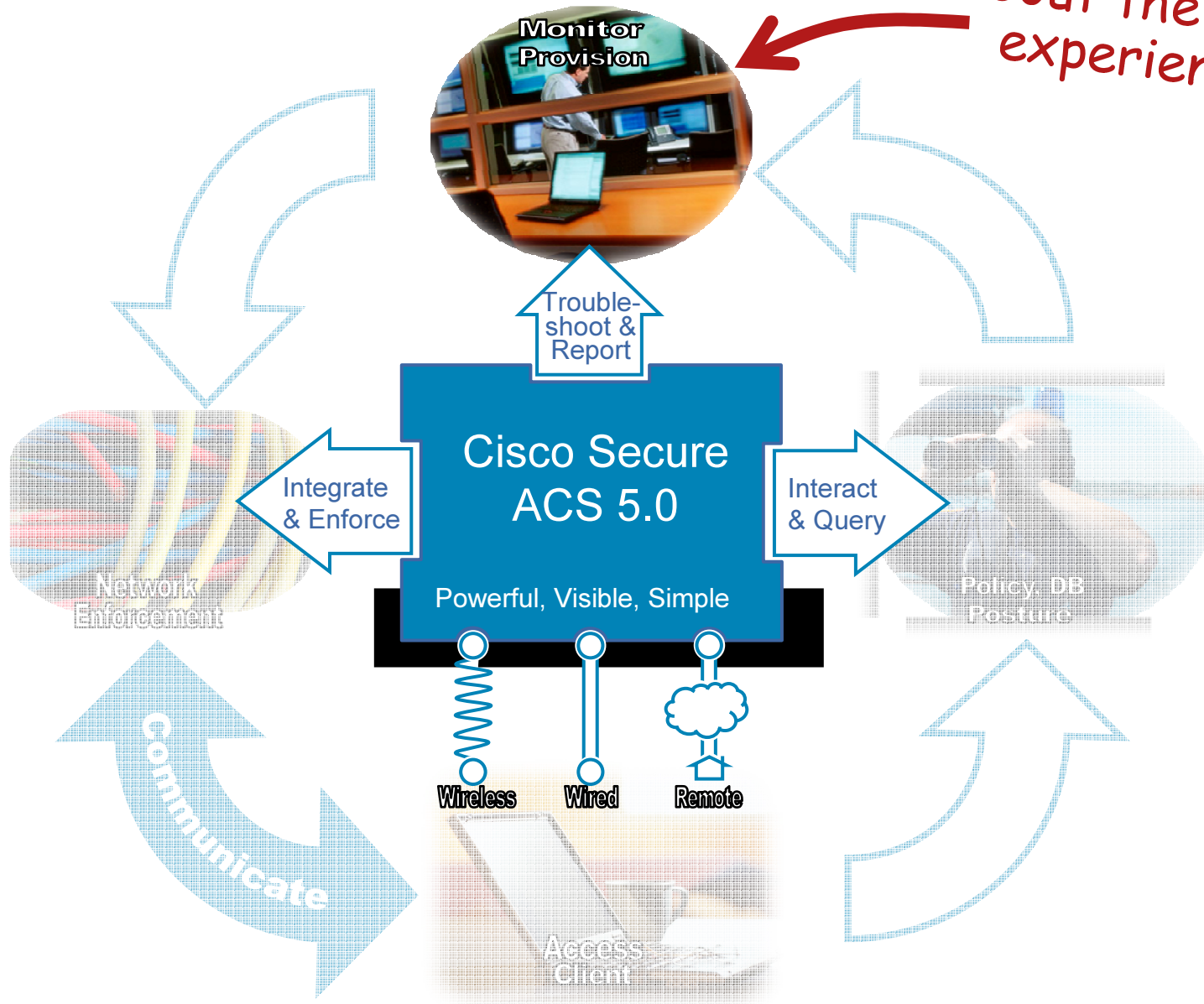
Key architecture

1. Includes both RADIUS & TACACS+ for complete N/W control and operation flexibility
2. Multiple identity interfaces allows flexible integration to multiple DB and ID resources
3. Replication mechanism allows deployment of multiple instances increasing availability and robustness
4. Administration of large scale deployments
5. Industry leading reporting, troubleshooting & compliance tools



Rule-based policy with ACS 5.0

Now let's talk about the user experience



ACS 5.0 new user experience

Visibility equals control



Light-weight GUI

Modern, web-based user experience that is secure, intuitive and easy to use

Easier to control

Integrated monitoring, reporting and troubleshooting components

ACS 5.0 Graphical User Interface

- Lightweight, secure, intuitive and easy to use web-based GUI
- Does not require additional client software for GUI access

The screenshot displays the Cisco Secure ACS 5.0 web-based GUI. At the top, the Cisco logo and 'Cisco Secure ACS' are visible on the left, and the user 'acsadmin' and session 'yyacoel-lnx (Primary)' are shown on the right, along with links for 'Help', 'Log Out', and 'About'. The left sidebar contains a 'My Workspace' section with a 'Welcome' message and a 'Task Guide' menu listing 'Quick Start', 'Initial System Setup', 'Policy Setup Steps', 'NAC-RADIUS Setup', and 'My Account'. Below this is a vertical menu with icons for 'Network Resources', 'Users and Identity Stores', 'Policy Elements', 'Access Policies', 'Monitoring and Reports', and 'System Administration'. The main content area is titled 'My Workspace: Welcome' and features a large 'Welcome to Cisco Secure Access Control System' header. Below the header are four main sections: 'Before You Begin' with 'Essential Reading to Get Started' (including 'ACS Policy Model & Terminology'), 'Getting Started' (with 'Let ACS guide you through these tasks' and links for 'Quick Start', 'Initial System Setup', and 'Policy Setup Steps'), 'New in ACS 5' (with links for 'Managing Network Devices', 'Managing Users & Identities', and 'Creating & Maintaining Policies'), and 'Tutorials & Other Resources' (with links for 'Introduction & Overview Video' and 'Common Scenarios'). At the bottom of the main content area, there is a section for 'Cisco Secure ACS Online Resources' with links to 'Product & Support Information', 'Forums', and 'WWW.CISCO.COM'.

ACS 5.0 Monitoring & Reports Component

- Integrated advanced monitoring, reporting & troubleshooting capabilities for maximum control and visibility

Easy to use GUI

Flexible presentation tools

- Consolidation of data across an ACS deployment

The screenshot displays the Cisco Secure ACS Monitoring and Reports Dashboard. The interface includes a navigation pane on the left with sections for Monitoring and Reports, and a main content area. The main content area shows the following components:

- Monitoring and Reports: Dashboard** (Protocol: RADIUS)
- Recent Alarms** table:

Severity	Time	Name	Cause	Status
Info	Sun Nov 30 04:02:01	System Alarm [Database Purging]	Database Purge finished	New
Info	Sun Nov 30 04:02:00	System Alarm [Database Purging]	Database Start Purging	New
Warning	Sun Nov 02 01:45:00	ACS - System Health	Alarm caused by ACS - System Health threshold	New
Warning	Sun Nov 02 01:45:00	ACS - AAA Health	Alarm caused by ACS - AAA Health threshold	New

- ACS Health Status** summary for instance `id-alpha-sjc3`:

ACS Instance	System Health	AAA Health
id-alpha-sjc3	Healthy	Healthy

- Identity Store Authentication Status** table:

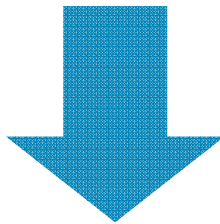
Identity Store	Today	Day of Week Average	Daily Average	Top 3 Failure Reasons
AD1	12 Pass 0 Fail	7 Pass 0 Fail	7 Pass 0 Fail	
Internal Hosts	76 Pass 0 Fail	38 Pass 0 Fail	43 Pass 0 Fail	
Internal Users	0 Pass 0 Fail	0 Pass 0 Fail	0 Pass 0 Fail	
NAC Profiler	0 Pass 0 Fail	0 Pass 0 Fail	0 Pass 0 Fail	

ACS 5.0: Reports

- Authentication
 - Authentication summary, failed authentication summary, MAC authentication reports, access service authentication reports
- AAA
 - RADIUS/TACACS+ authentication and accounting ,TACACS+ authorization
- Health/Operations Status
 - Diagnostics, health summary
- ACS Administration
 - Administrator logins, configuration changes
- Command Audit
 - Command audit by user/device, command authorization by user/device

“Should I use ACS 5.0 or 4.2?”

- ACS 5.0 supports many access scenarios, but not all ACS 4.2 features
- Additional ACS 5.x releases are planned for 2009



Consult ACS 5.0 documentation
for more information

References provided later in this slide deck



ACS 5.0 Platform Options

- Linux Appliance
 - One rack-unit (1RU)
security-hardened, Linux-
based appliance
- VMWare version
 - Software application and
Linux operating system
image for installation on
VMware ESX 3.5



Migration and Upgrades

- ACS 5.0 includes a migration tool to assist in migrating existing ACS data

The new ACS 5.0 policy model may require that some policies be reconfigured

More Information

- ACS 5.0 home page

<http://www.cisco.com/go/acs>

- ACS 5.0 documentation

http://cisco.com/en/US/products/ps9911/tsd_products_support_series_home.html

- ACS 4.2 and 5.0 comparison

http://cisco.com/en/US/docs/net_mgmt/cisco_secure_access_control_system/5.0/user/guide/migrate.html#wp1052549

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The One Day CSA Install

What's Easy

What's Harder

What Should Be Customized





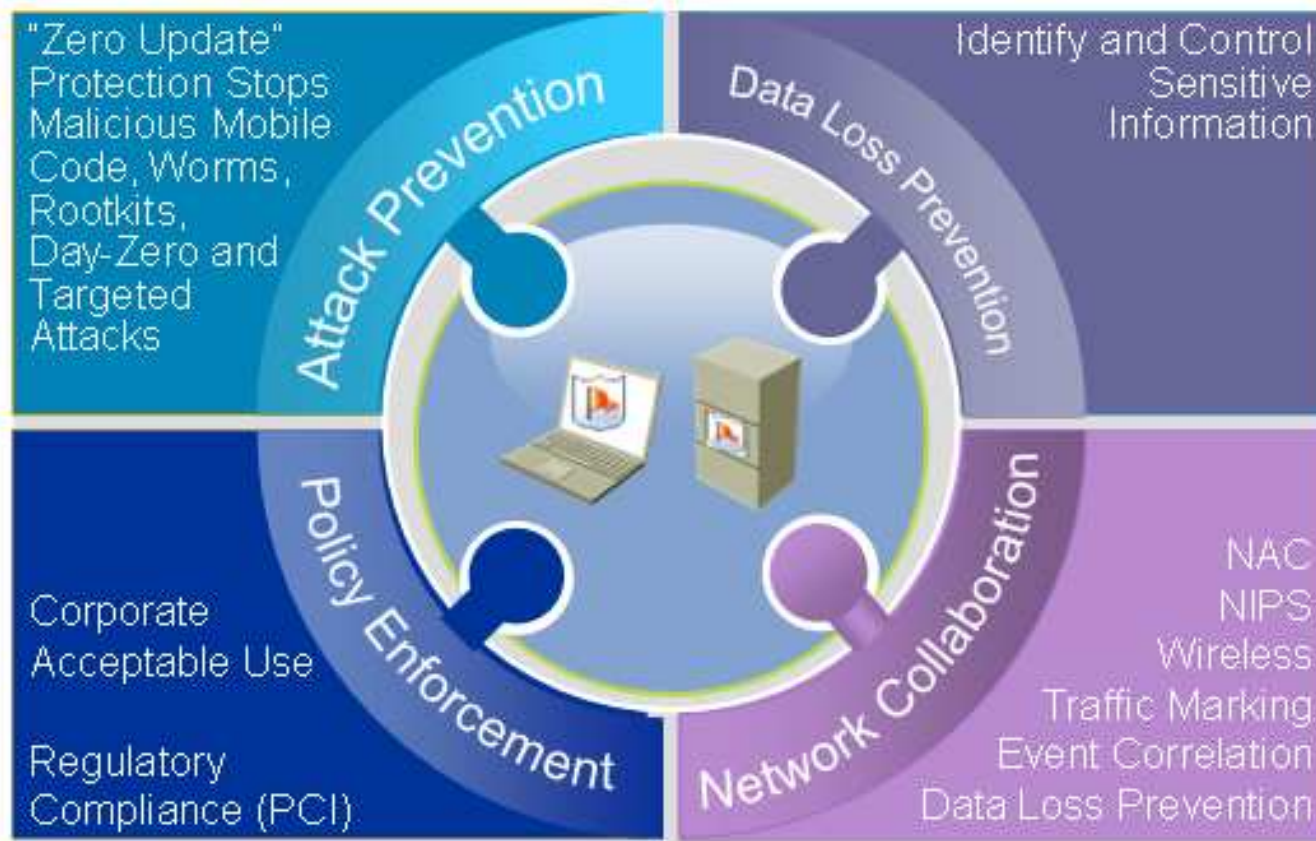
What's New in CSA 6.0



What is this? One-day install

Cisco Security Agent

Always Vigilant Comprehensive Endpoint Security



Laptop – Desktop Protection



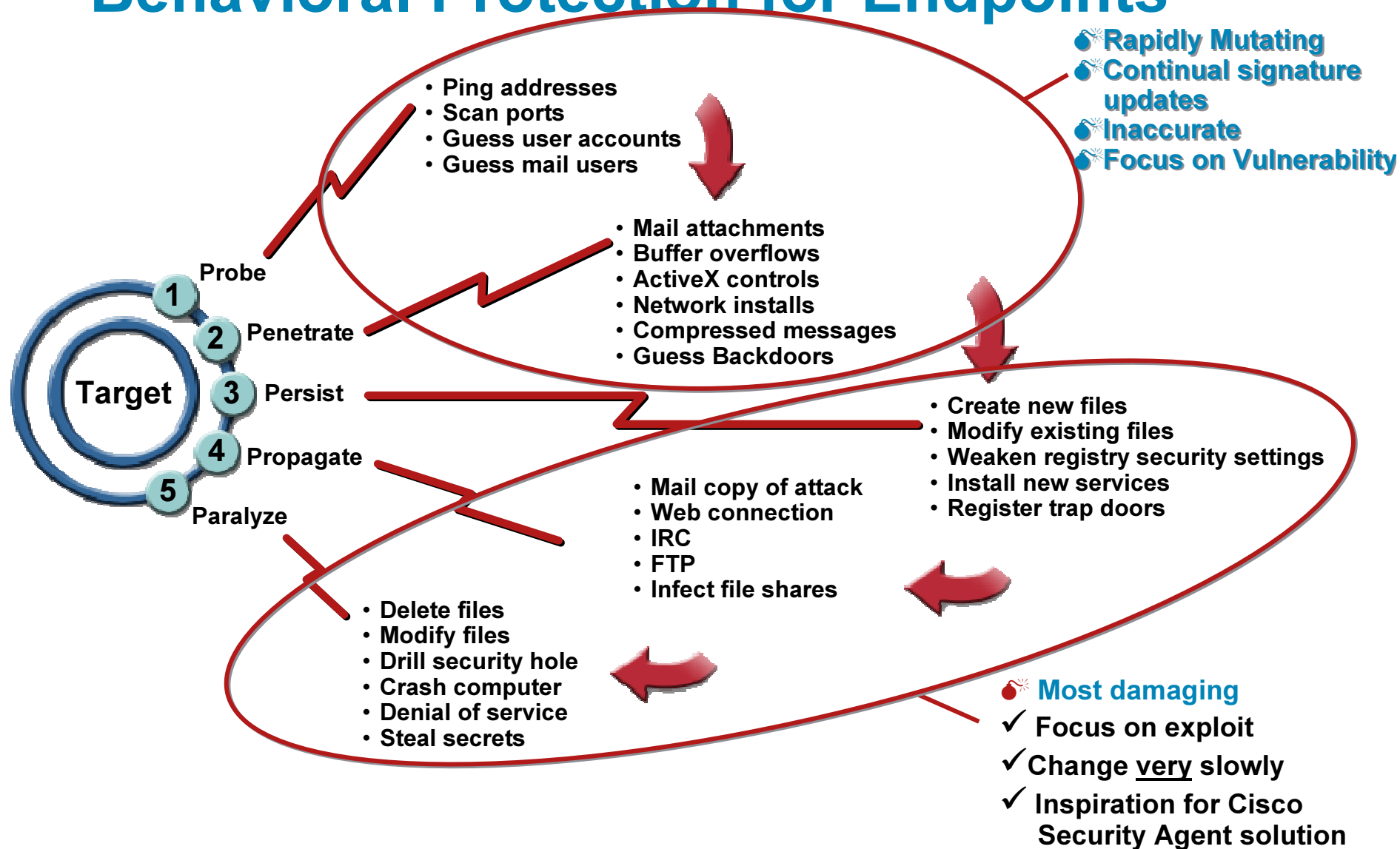
Server Protection



POS Protection

SINGLE INTEGRATED AGENT AND MANAGEMENT

CSA Approach: Behavioral Protection for Endpoints



CSA with ClamAV Integrated, Synergistic

Feature	ClamAV™ Only	CSA + ClamAV™ combo
Signature database >200,000 sigs	✓	✓
Bulk file system scan	✓	✓
Rapid Signature Update	✓	✓
On-Demand scan	✗	✓
Quarantine file	✗	✓
Delete malware New in CSA 6.0!	✗	✓
Day zero protection	✗	✓
Rootkit protection	✗	✓

vendor	detected	total	percent
AntiVir	1204953	1229800	97.98%
Vexira	1203678	1229800	97.88%
VirusBuster	1203471	1229800	97.86%
F-Secure	1203244	1229800	97.84%
Norman	1203274	1229800	97.84%
F-Prot6	1202403	1229800	97.77%
Clam	1201805	1229800	97.72%
DrWeb	1201442	1229800	97.69%
AVG7	1200639	1229800	97.63%
Avast	1199011	1229800	97.50%
McAfee	1185278	1229800	96.38%
F-Prot	1176390	1229800	95.66%
Panda	1138986	1229800	92.62%
Kaspersky	1036869	1229800	84.31%
BitDefender	1036210	1229800	84.26%
VBA32	994177	1229800	80.84%
NOD32	798148	1229800	64.90%

Source: Shadowserver.org wild testing

Data Loss Prevention

Identify and Control Sensitive Information

Discover

- Classification
 - Credit card, Social Security #s
 - Intellectual property definitions

Monitor

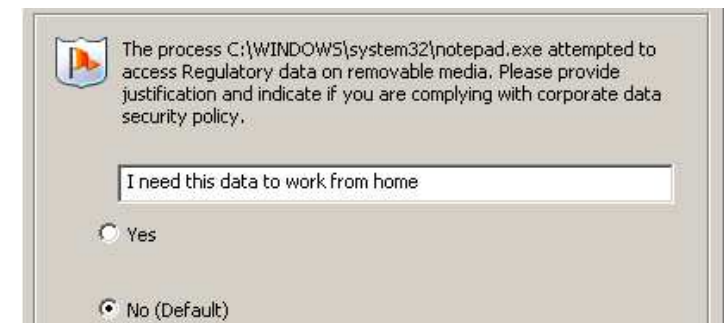
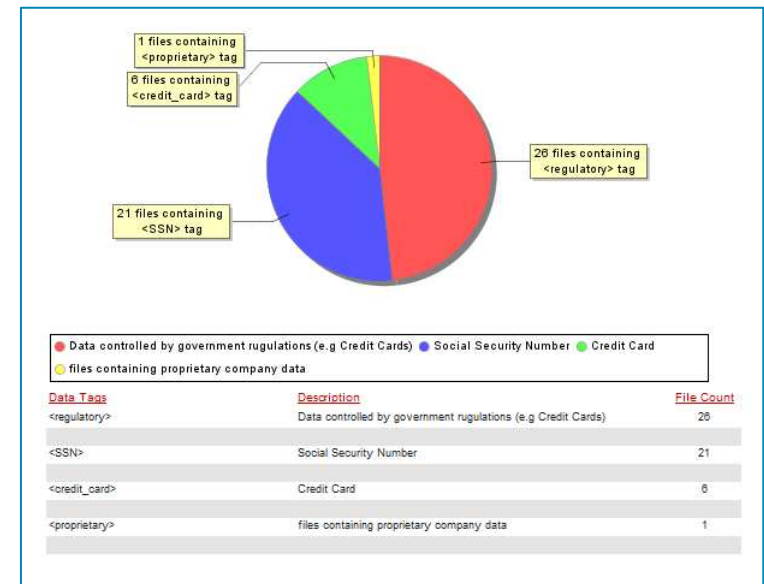
- Reporting
 - Track the location and usage of sensitive data

Educate

- Enhanced user education
 - Query user and audit

Enforce

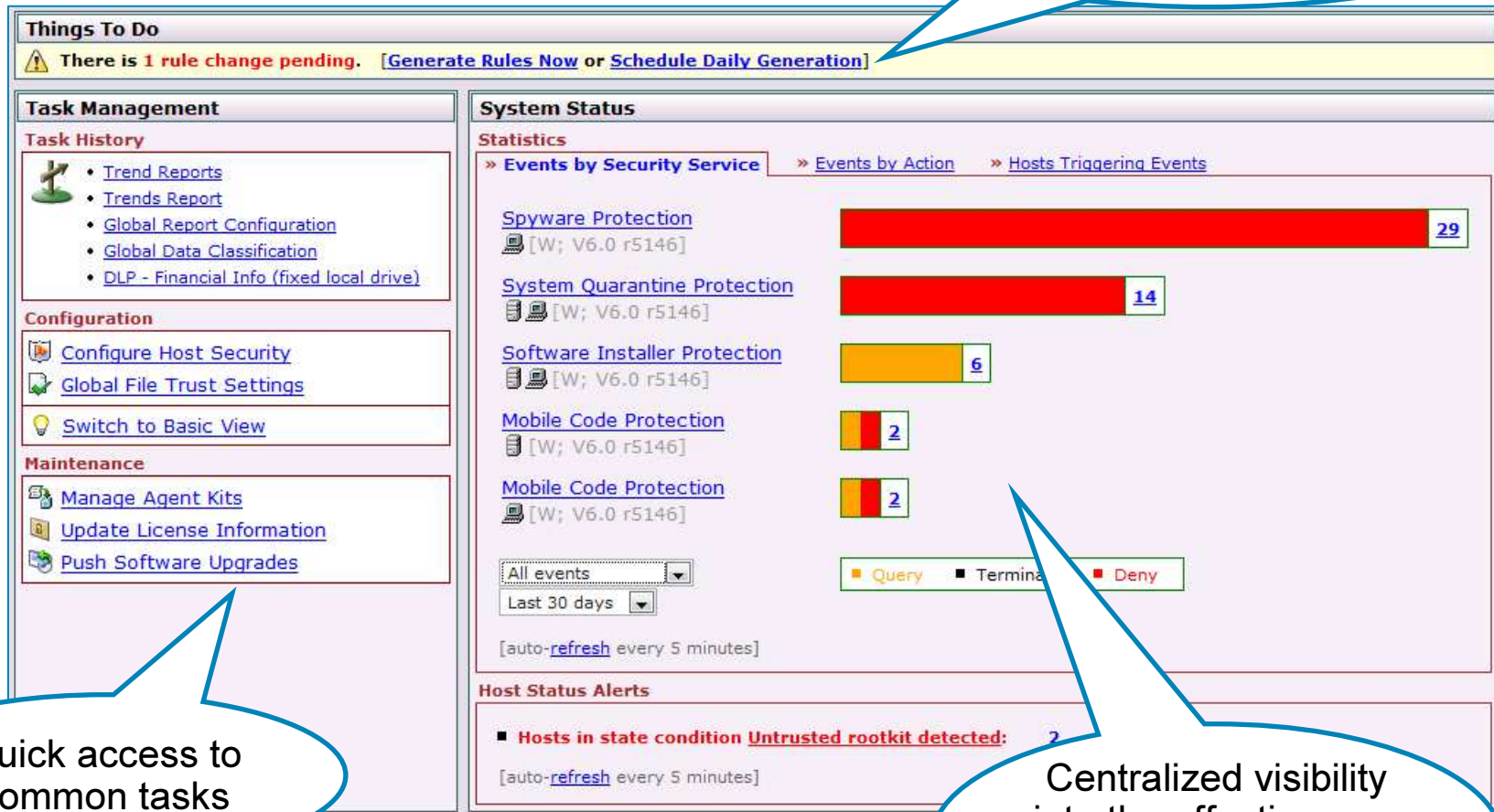
- Updated enforcement controls
 - Block printing
 - Flexible clipboard control
 - NAC quarantine



Easier to Use

Administrator Dashboard

The dashboard helps the administrator see what needs to be done today



Quick access to common tasks

Centralized visibility into the effectiveness of your endpoint protection

Easier to Deploy and Tune



Rapid deployment of endpoint protection with default services

Policies protect against entire classes of attacks

Item Count: 6

File Name	Trust Level	Justification	Creation Time	Source	OS
**\kazaa.exe	Black List	Prohibited by corporate policy	3/14/2008 2:37:15 PM	entered by administrator	Windows
**\jmwire.exe	Black List	Prohibited by corporate policy	3/14/2008 2:36:30 PM	entered by administrator	Windows
**\Program Files\ATI Technologies\ATI.ACE\CLI.exe	White List	ATI video configuration utility. [...]	3/4/2008 3:39:38 PM	Event Management Wizard	Windows
**\WINDOWS\system32\DRIVERS\SynTP.sys	White List	Synaptic Touchpad Driver	3/17/2008 2:45:57 PM	Event Management Wizard	Windows
**\skype.exe	White List		3/18/2008 10:20:12 AM	entered by administrator	Windows
@system\drivers\CmgShREG.sys	White List	Mobile... driver	3/18/2008 10:20:12 AM	entered by administrator	Windows

Legend

- White List: I trust this application.
- Grey List: I am not sure I trust this application.
- Black List: I do not trust this application.

Streamlined tuning based on the "trustworthiness" of the application



Deployment Overview



Rapid Deployment Guide

- Install the MC and update License
- Choose your policies and generate rules
- Deploy agents
- Tune events using the Wizard
- Let things run for a week or so, and then follow up with a 1 day “Check Up” final tuning session

Rapid Deployment Guide for
Desktops Cisco Security Agent 6.0



Install the CSAMC

- This has changed little from prior releases
- Remember to use a Windows 2003 R2 system
 - If you don't use R2, you will get a message at install saying this is a non-supported configuration
- For demo/eval, you can run the MC in VMWare
 - Don't do this for actual operations
- You'll want the license when you install – the installer will ask you for it
 - You can always add it later, but this is easiest
- Request a 30-day eval license online

Choose the policies

- This is VERY different from earlier versions
- The Simplified GUI has a “Host Security Page” with checkboxes to select policies
- The checkboxes map to CSA Policies, but you have to go into the “Advanced View” to see these
- Each policy can be in “Audit Mode” (renamed “Test Mode”), or the group can be in Audit mode
- If there’s configuration required, you will get a red “Warning” link next to the policy name
- Remember to Generate rules

Policies	Audit Mode
<input checked="" type="checkbox"/> Anti-Rootkit (desktops) [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Anti-Sniffer [V6.0 r201]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Anti-Spyware [V6.0 r201]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Anti-Virus - Behavior based (desktops) [V6.0 r201] [warning]	<input type="checkbox"/>
<input type="checkbox"/> Anti-Virus - Signature based (desktops) [V6.0 r201]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Audit System Integrity [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Block wireless bridging [V6.0 r201] [warning]	<input type="checkbox"/>
<input type="checkbox"/> Block writing files to USB devices [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Data Loss Prevention [V6.0 r201] [warning]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Firewall - Centrally Managed (desktops) [V6.0 r201] [warning]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Firewall - User Managed [V6.0 r201] [warning]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Quarantine compromised applications [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Quarantine compromised hosts [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Require VPN for hosts on insecure networks [V6.0 r201] [warning]	<input type="checkbox"/>

Hosts attached to this group: 0 hosts
Available kits for this group: [1 agent kit](#)

Changes to this group will affect the hosts and kits referenced above.

Deploy Agents

- This is the same as older versions
- The CSAMC builds installable “Agent Kits”
 - Installshield executable, tarball, Solaris package
 - Contains binaries, policy, CSAMC SSL certificate
- Easiest way to get kit to system is to use web download from CSAMC
- Can also use SMS, Bigfix, etc.

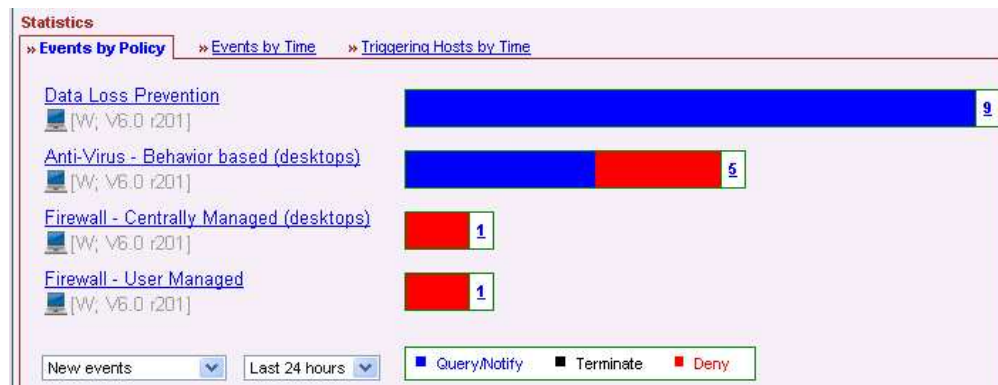


[[Get root certificate](#)]

[[Agent Kits](#)]

Tune the events

- Click on event graph to see specific events
- Wizard link in event takes you to Tuning Wizard
- Wizard walks you through 99% of tuning
- Most early deployment tuning will be using White List



#	Date	Host	Severity	Action	Event
2	8/14/2008 9:35:27 AM	jonkelle-wxp02.cisco.com	Alert	⊗	The process 'C:\Program Files\Lenovo\NPDIRECT\NPDAPLY.exe' (as user CISCO\jonkelle) attempted to modify the memory in process 'C:\WINDOWS\explorer.exe'. The operation was denied. Details Rule 422 Wizard

Event Management Wizard [step 1]

Welcome to the Event Management Wizard. Choose one of the following options.

Classify Application

Application that triggered this event:

Action:

Justification:



What To Use What Not To Use

CSA Feature Summary – Low and Medium Difficulty

Acceptable Usage Policies			
Name	Initial Configuration Level	Tuning Overhead	Time Estimated for Deployment
Require VPN hosts on insecure networks	Low	Low	1-day
Block Wireless Bridging	Low	Low	1-day
Block Writing Files to USB Devices	Low	Low	1-day
Audit System Integrity	Low	Low	1-day
Anti-Sniffer	Low	Low	1-day
PCI Compliance	High	High	More than 1 week
Data Loss Prevention for Desktops	High	High	More than 1 week
Protection from Zero-Day, direct and indirect attacks			
Name	Initial Configuration Level	Tuning Overhead	Time Estimated for Deployment
Anti-Virus - Signature Based	Low	Low	1 week
Anti-Virus - Behavior-based	Low	Medium	1 week
Anti-Spyware	Low	Medium	1 week
Firewall Centrally Managed	Low	Medium	1 week
Firewall User Managed	Low	Low	1 week
Anti-Rootkit	Low	Medium	More than week
Quarantine Compromised Applications	Low	Medium	More than 1 week
Quarantine Compromised Hosts	Low	Medium	More than 1 week



Check the To-Do List And Eliminate Warnings

- The CSAMC admin GUI has a To-Do list at the top of the Home Page
- Each entry has a link to a Wizard
- Use the Wizard to Eliminate the warnings
- For example, configure DB backup schedule

The screenshot displays the Management Center for Cisco Security Agents V6.0 web interface. The main navigation bar includes 'Events Systems Configuration Analysis Maintenance Reports Search Help'. The 'Home' page features a 'Things To Do' section with the following items:

- Get up and running. [Launch the Quick Start Guide]
- No database backup strategy has been configured yet. [Schedule Backups]
- There are 2 rule
- There is 1 group

The 'Task Management' section shows 'Favorite Reports' (RSAClient) and 'Task History' (Backup Config, Alerts, we, test, Untitled_1, Network Inter). The 'Security Settings' section includes 'Host Security' and 'Application Trust'. The 'Maintenance' section is currently active.

The 'Backup Configuration' wizard is open, showing a warning: 'Warning: It is highly recommended that the backup directory is not located on the system drive or on the Management Center for Cisco Security Agents directory drive.' Below the warning, the following backup strategy is active:

- No database backup
- Scheduled database backup

The 'Configuration' section offers three options:

- Low frequency backup
 - full - every Sunday midnight
 - differential - every midnight, except Sundays
 - transaction log - every 24 hours, at noon
- Medium frequency backup
 - full - every Sunday midnight
 - differential - every midnight, except Sundays
 - transaction log - every 8 hours
- High frequency backup
 - full - every Sunday midnight

The right-hand pane displays 'Backup and Restore Configurations' with detailed instructions and cautions. A 'Save' button is visible at the bottom of the wizard.



Deployment Phase II

Choosing Your Policies

Policies	Audit Mode
<input checked="" type="checkbox"/> Anti-Rootkit (desktops) [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Anti-Sniffer [V6.0 r201]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Anti-Spyware [V6.0 r201]	<input type="checkbox"/>
<input checked="" type="checkbox"/> Anti-Virus - Behavior based (desktops) [V6.0 r201] <small>[warning]</small>	<input type="checkbox"/>
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<input checked="" type="checkbox"/> Firewall - Centrally Managed (desktops) [V6.0 r201] <small>[warning]</small>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Firewall - User Managed [V6.0 r201] <small>[warning]</small>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Quarantine compromised applications [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Quarantine compromised hosts [V6.0 r201]	<input type="checkbox"/>
<input type="checkbox"/> Require VPN for hosts on insecure networks [V6.0 r201] <small>[warning]</small>	<input type="checkbox"/>

Hosts attached to this group: 0 hosts
Available kits for this group: [1 agent kit](#)

Changes to this group will affect the hosts and kits referenced above.

What The Policies Do (VPN, WiFi)

- **Require VPN When Out Of Office**

If user is not in office, apps must use VPN tunnel, or CSA blocks app

5 minutes to let user connect to hotspot

You need to configure DNS name, SSIDs



- **Block Wireless Bridging**

If Ethernet is active, no apps allowed to communicate via WiFi adapters

No configuration required

Note that WiFi adapter will associate with Access Point – this allows immediate failover to the WiFi LAN when you undock

What The Policies Do (A/V, PFW)

- Signature-based Antivirus

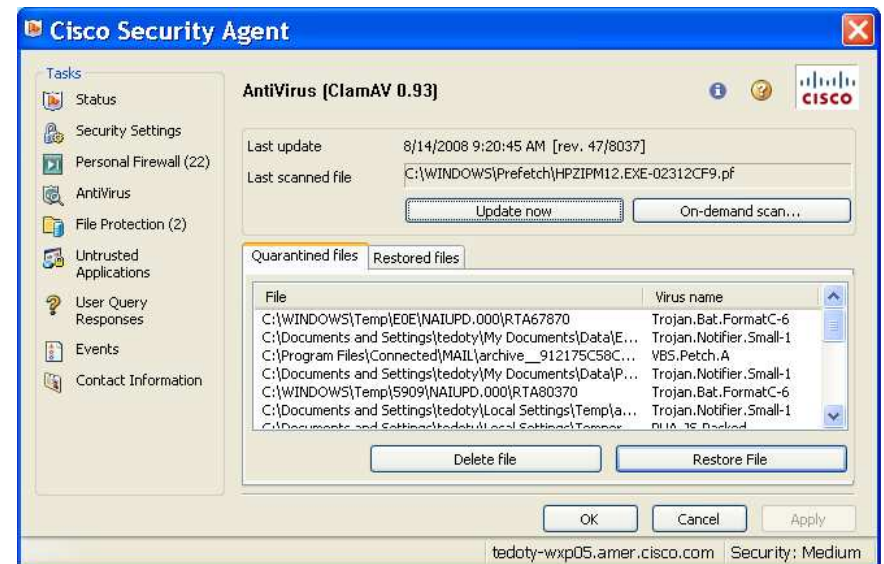
This is ClamAV

Agent GUI has antivirus tab

Wizard has way to tune false positives

Likely these will be “PUA” –
Potentially Unwanted Applications

CSA/Clam will not coexist well with Symantec or McAfee



- Centrally Managed Personal Firewall

Allows outgoing connections

Blocks incoming connections to well-known or fixed ports

Stops network packet attacks and buffer overflows

No end user interaction involved

What The Policies Do (Behavioral A/V)

- Behavior Based Antivirus

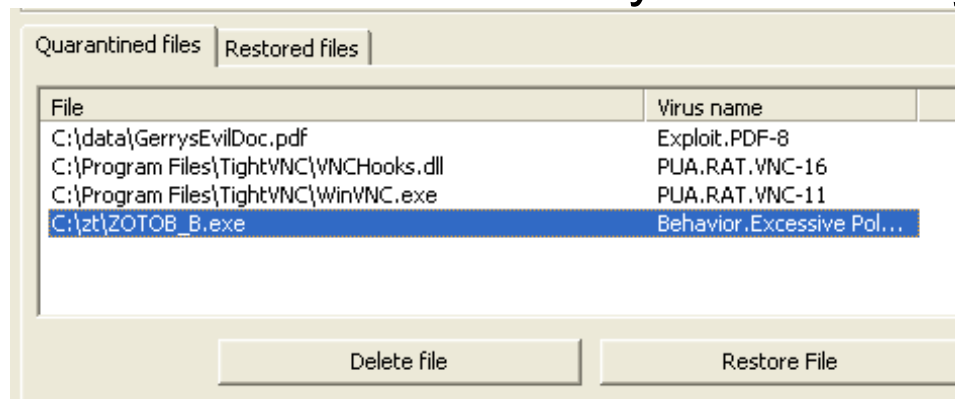
This is the classic CSA Day Zero Protection

Expect 2 types of user queries:

“Are you installing software?”

“I’ve never seen this application on this system before” (First-time execute)

Malware detected here will show up in Quarantine, just like if a signature had identified it. It will say “Behaviorally identified”



What The Policies Do (Spyware, PFW)

- Anti-Spyware

Monitors for Spyware and Trojan like behavior

Hooking keyboard, create user accounts and install services, modify system configuration, etc

Downloaded or “Untrusted” applications are the ones monitored

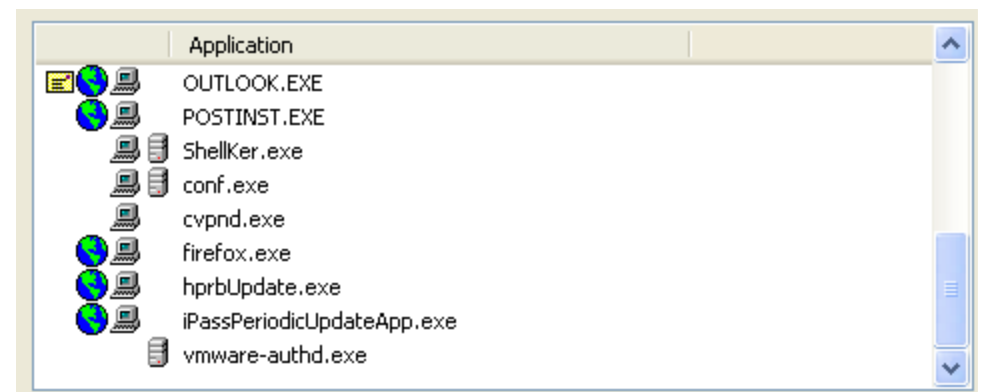
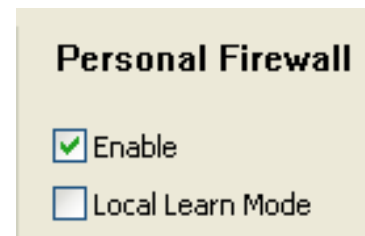
Moderate tuning required, via the Wizard

- User Managed Personal Firewall

ZoneAlarm style PFW.

Populates list of apps allowed to connect to network, by asking user

User can run in “Learn Mode” for a period of time where list is automatically populated.



What The Policies Do (Audit System Integrity, Block Files Writing to USB Devices)

- Audit System Integrity

Detects suspicious behavior on hosts or system configuration, changes which may affect system integrity.

“Monitors” only.

- Block Files Writing to USB Devices

Preventing written access to removable media, based on Corporate Data Security Policy.



What The Policies Do (Quarantine Apps, Hosts)

- Applications

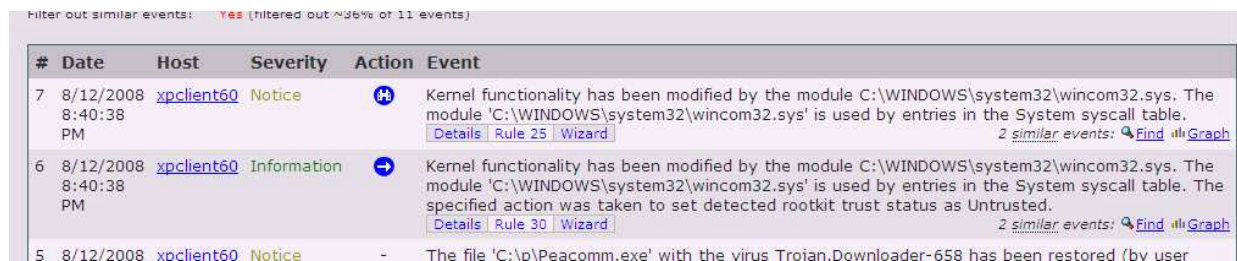
Quarantines compromised applications, i.e. worm propagation,
Prevents applications from infecting system.

- Hosts

Isolates hosts containing suspected rootkits from the network,
i.e. Storm Trojan

Works in conjunction with the Anti-Rootkit Policy.

Reset CSA agent either locally or centrally from CSA MC to bring
back original state of system.



Filter out similar events: Yes (filtered out ~96% of 11 events)

#	Date	Host	Severity	Action	Event
7	8/12/2008 8:40:38 PM	xpclient60	Notice	+	Kernel functionality has been modified by the module C:\WINDOWS\system32\wincom32.sys. The module 'C:\WINDOWS\system32\wincom32.sys' is used by entries in the System syscall table. Details Rule 25 Wizard 2 similar events: Find Graph
6	8/12/2008 8:40:38 PM	xpclient60	Information	→	Kernel functionality has been modified by the module C:\WINDOWS\system32\wincom32.sys. The module 'C:\WINDOWS\system32\wincom32.sys' is used by entries in the System syscall table. The specified action was taken to set detected rootkit trust status as Untrusted. Details Rule 30 Wizard 2 similar events: Find Graph
5	8/12/2008	xpclient60	Notice	-	The file 'C:\d\Peacomm.exe' with the virus Trojan.Downloader-658 has been restored (bv user

What The Policies Do (Anti-Sniffer, Anti-Root Kit)

- Anti-Sniffer

Detects packet sniffers and unknown protocols, i.e. systems should not have Wireshark installed unless you belong to the Networking Group.

- Anti-Rootkit

Detects unauthorized kernel activity upon startup and kernel modifications.

Filter out similar events: Yes (filtered out ~36% of 11 events)

#	Date	Host	Severity	Action	Event
7	8/12/2008 8:40:38 PM	xpclient60	Notice	+	Kernel functionality has been modified by the module C:\WINDOWS\system32\wincom32.sys. The module 'C:\WINDOWS\system32\wincom32.sys' is used by entries in the System syscall table. Details Rule 25 Wizard 2 similar events: Find Graph
6	8/12/2008 8:40:38 PM	xpclient60	Information	→	Kernel functionality has been modified by the module C:\WINDOWS\system32\wincom32.sys. The module 'C:\WINDOWS\system32\wincom32.sys' is used by entries in the System syscall table. The specified action was taken to set detected rootkit trust status as Untrusted. Details Rule 30 Wizard 2 similar events: Find Graph
5	8/12/2008	xoclient60	Notice	-	The file 'C:\p\Peacomm.exe' with the virus Trojan.Downloader-658 has been restored (bv user)

Agenda

- Cisco Security Strategy Moving Forward
- New Features in ASA, IPS and NAC
- Pause – 15 min
- Cisco Spam & Virus Blocker
- ACS
- CSA 6.0 1 Day Install
- **Pause – 15 min**
- CSA Live Demo



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Q and A



