

SEP 12.1 Advanced Features

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Agenda

- 1 Changes in the Threat Landscape
- 2 Symantec Endpoint Protection 12
- 3 Unrivaled Security
- 4 Blazing Performance
- 5 Built For Virtual Environments

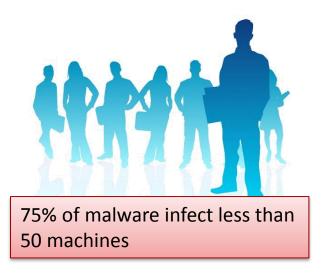
Malware Authors Have Switched Tactics



From:

A mass distribution – one worm hits millions of PCs

 Storm made its way onto millions of machines across the globe



To:

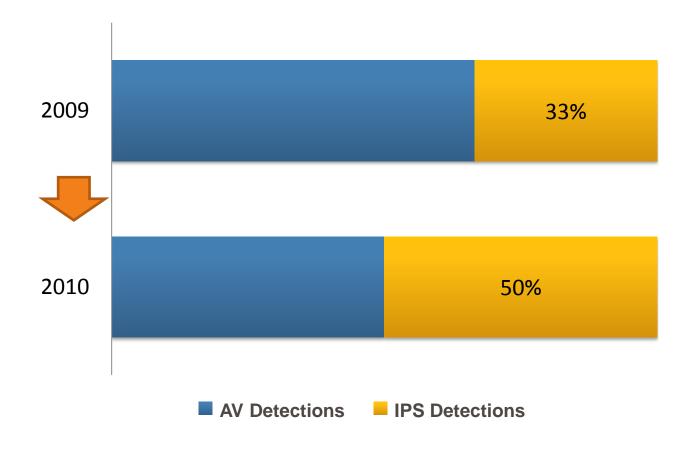
A micro distribution model.

- Hacked web site builds a trojan for each visiter
- The average Harakit variant is distributed to 1.6 users!

Threat Activity Trends

Attacks Blocked/Technology - Endpoint Protection





The Problem

Millions of file variants (good and bad)

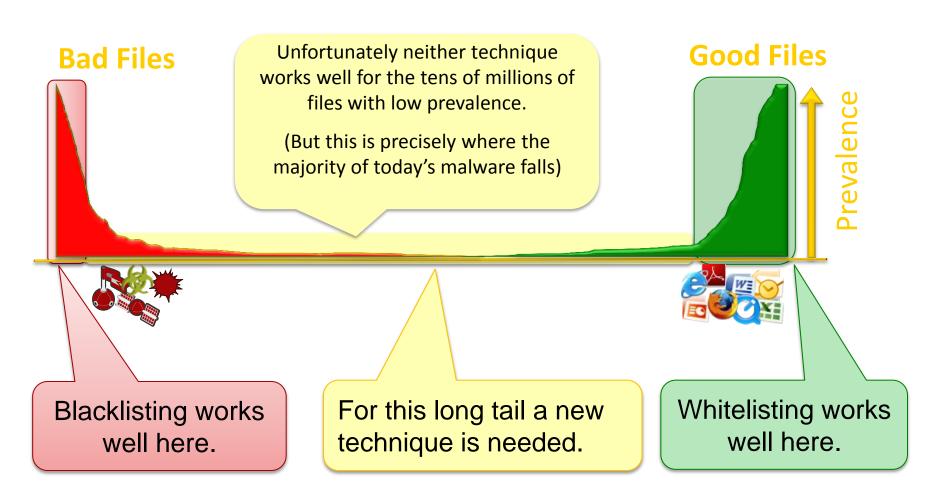
So imagine that we know:



- about every file in the world today...
- and how many copies of each exist
- and which files are good and which are bad
- Now let's order them by prevalence with
 - Bad on left
 - Good on the right

The Problem

No Existing Protection Addresses the "Long Tail"





Symantec Endpoint Protection 12.1

What's New in SEP 12



Unrivaled Security

- Powered by Insight
- Real Time Behavior Monitoring with SONAR



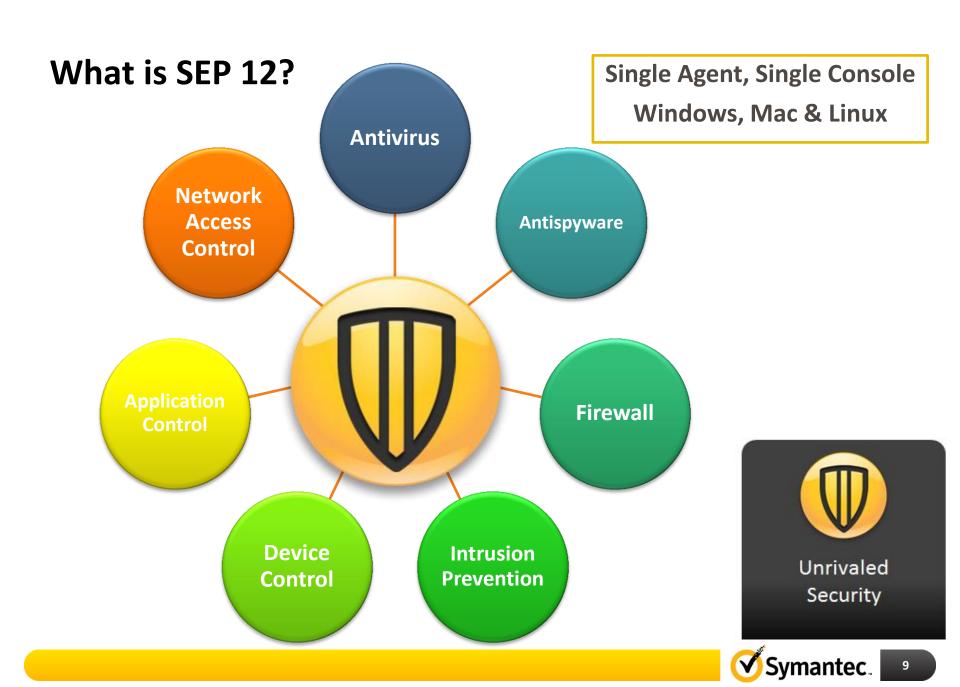
Blazing Performance

- Up to 70% reduction in scan overhead
- Smarter Updates
- Faster Management



Built for Virtual Environments

- Tested and optimized for virtual environments
- Higher VM densities





Powered by Insight



Proactive protection against new, mutating threats

- Puts files in context, using their age, frequency, location and more to expose threats otherwise missed
- Using community-based security ratings
- Derived from Symantec's more than 175 million endpoints



Reputation



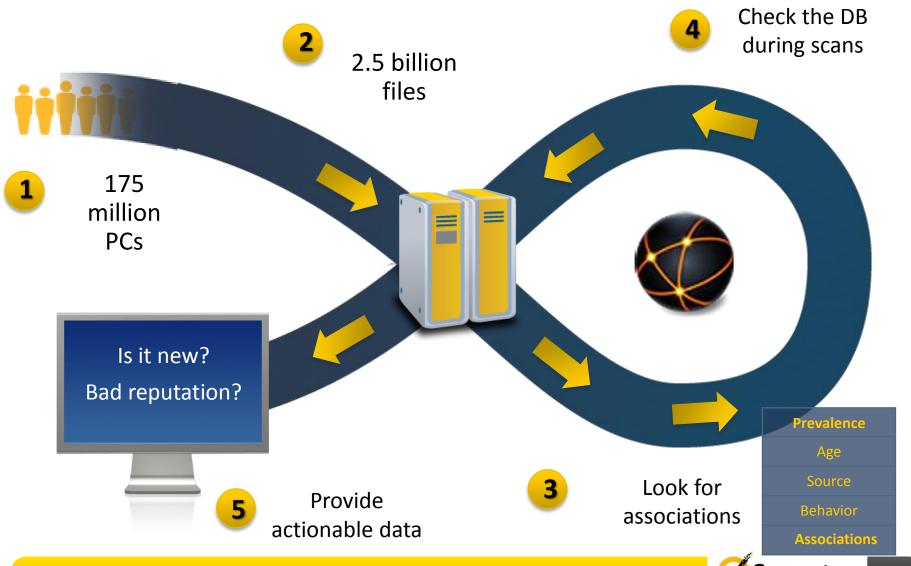
Prevalence



Age



How Insight Works



Reputation

Our Implementation



We then built a massively-parallel analysis algorithm

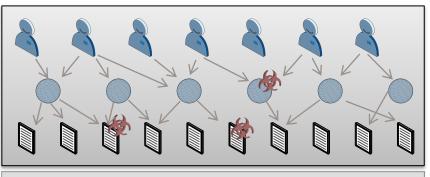
Norton Community Watch

Opt in program to collect anonymous data









Our system tracks virtually every application in the world

- 2.5B unique app files across all versions and languages
- It has data on all files: EXEs, drivers, DLLs, plug-ins
- Provides reputation, prevalence, discovery date of every file
- Leveraged in Download Insight, SONAR, and ScanLess

Symantec Reputation Engine

Uses the collected data to determine safety reputation







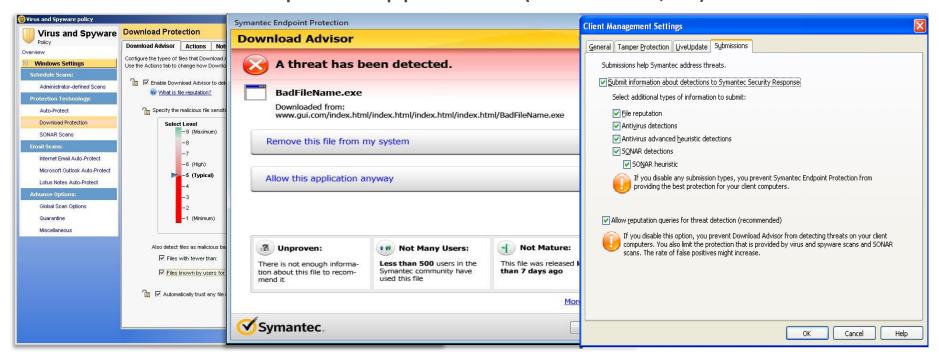
Symantec File Safety Reputations





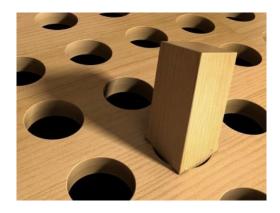
Download Insight

- Download Insight is a technology that checks the reputation of binaries being downloaded and blocks them if they are "Bad".
- Download Insight scans files when they are downloaded using what we term a portal application (IE. Firefox, IE)



A Weapon Against False Positives

Reputation reduces false positives in two important ways:



 Our back-end systems check the reputation of every file sent to our labs

Filters legitimate files so that analysts don't inadvertently fingerprint these



Our endpoint products consult with reputation before removing suspicious software

Greatly reduces the risk of a high prevalence FP





Behaviour Analysis and System Heuristics

- Symantec Online Network for Advanced Response (SONAR)
 - Suspicious Behavior Detection
 - System Change detections
 - Hosts file and DNS change detections.
 - Tamper Protection (SymProtect)
- It's the next generation heuristics engine
- Unlike SEP 11, SONAR Provides real time protection
- Able to convict on process launch.
 - Behaviors of applications are assessed as they happen, in real time.
- Improved with new support for File and Registry protection.
- Updateable through LiveUpdate



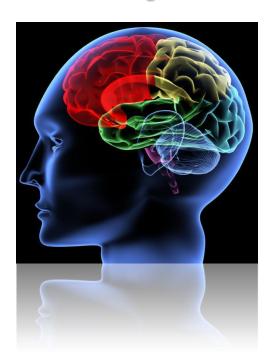
SONAR Features

This information enables three new features

Artificial Intelligence Based Classification engine



Human-authored
Behavioral Signatures

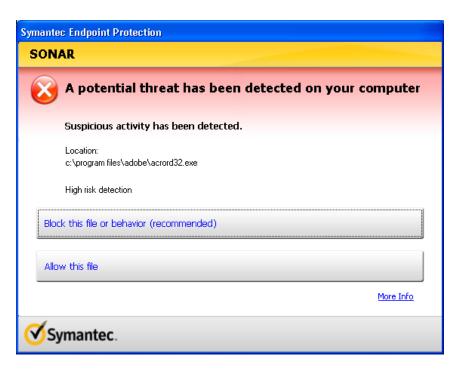


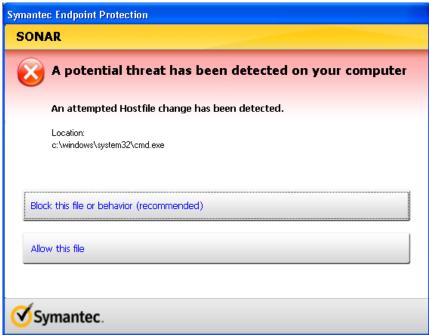
Behavioral Policy Lockdown





SONAR





Detect: **Suspicious Behavior**

Detect: **System Changes**

Results in the Field



	Blocked June 2010	Blocked Since Launch	
Standalone Reputation	1.17M	6.7M	
Heuristics + Reputation	192,000	2.2M	
Behavior + Reputation	1.29M	14.6M	
Benavior + Reputation	2.65M	23.5M	

And this is just the beginning!





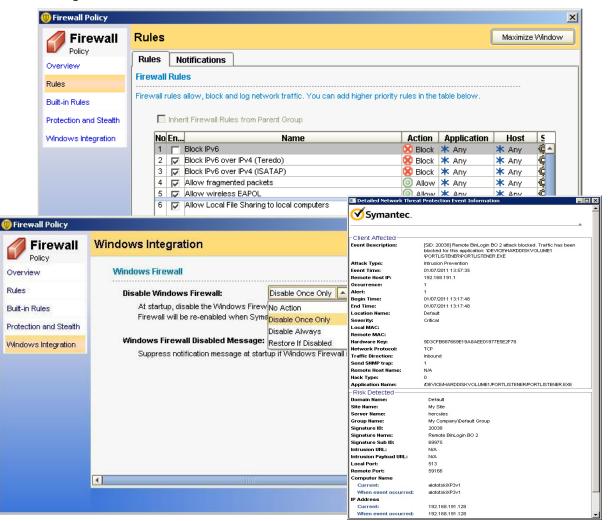
SymProtect

- SymProtect (Tamper Protection) has been changed from Log-only by default to Block and Log.
- SEP 12.1 also made the addition of file and registry protection.
- Process protection only processes backed by files in the SEP silo
 - Migrations will keep legacy settings.
 - May affect custom tools that try to modify SEP resources:
 - Registry
 - Files
 - Named objects
 - Processes (Only processes backed by files in the SEP silo are protected).
- By default, only Symantec signed applications are not affected by Tamper Protection
 - Administrators may create authorizations within SEPM





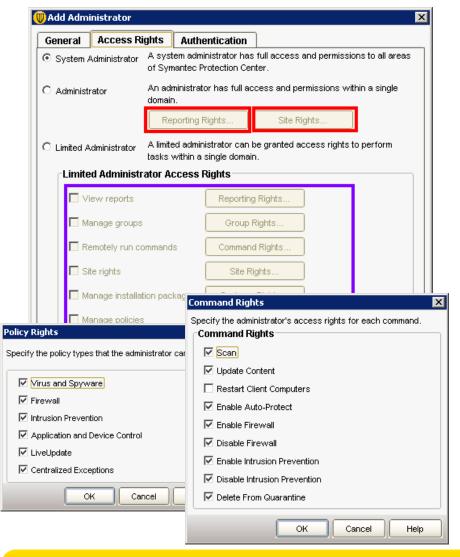
Updated Firewall/IDS/Browser Heuristics



- NDIS5/NDIS6 Support
- Firewall Rules can be applied to IPv6 Traffic
- Decoupled FW Dependencies with AV/DC/IDS
- Improved Windows Firewall Integration
- Improved IDS Reporting and Error Handling
- Browser Heuristics



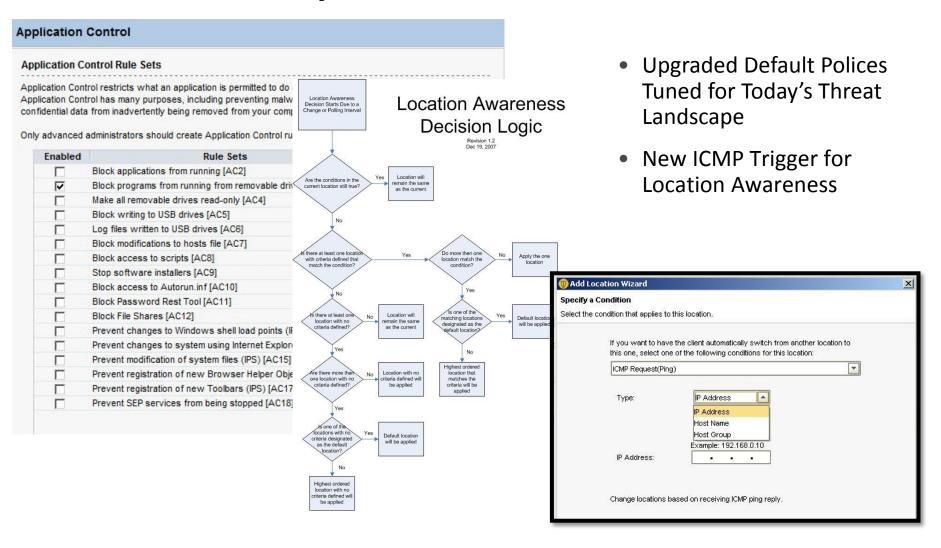
Role-based Access Control



- Limit the rights of administrators based on administrative role
- Allow administrators to view policies by assigning them read-only access
- Restrict what commands admins can do based on their need
- Assign policy rights based on admin expertise



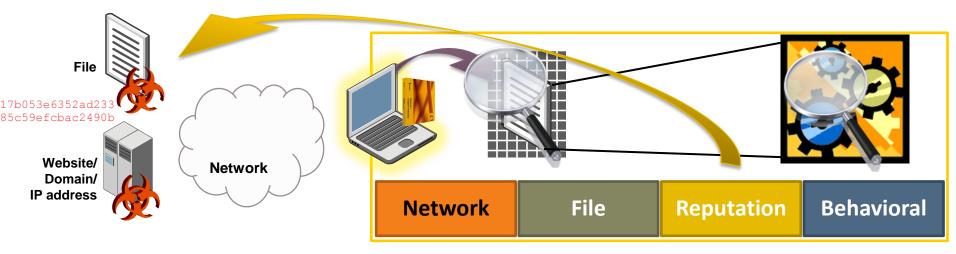
Advanced Security Policies



Symantec Endpoint Protection Model

Defense in Depth





Network-based Protection

Stops malware as it travels over the network and tries to take up residence on a system

- Protocol aware IPS
- Browser Protection

2 File-based Protection

Looks for and eradicates malware that has already taken up residence on a system

- Antivirus Engine
- Auto Protect
- Malheur

Reputation-based Protection

Establishes information about entities e.g. websites, files, IP addresses to be used in effective security

- Insight
- Domain Reputation
- File Reputation

Behavioral-based Protection

Looks at processes as they execute and uses malicious behaviors to indicate the presence of malware

- SONAR
- Behavioral Signatures

Results in the Field

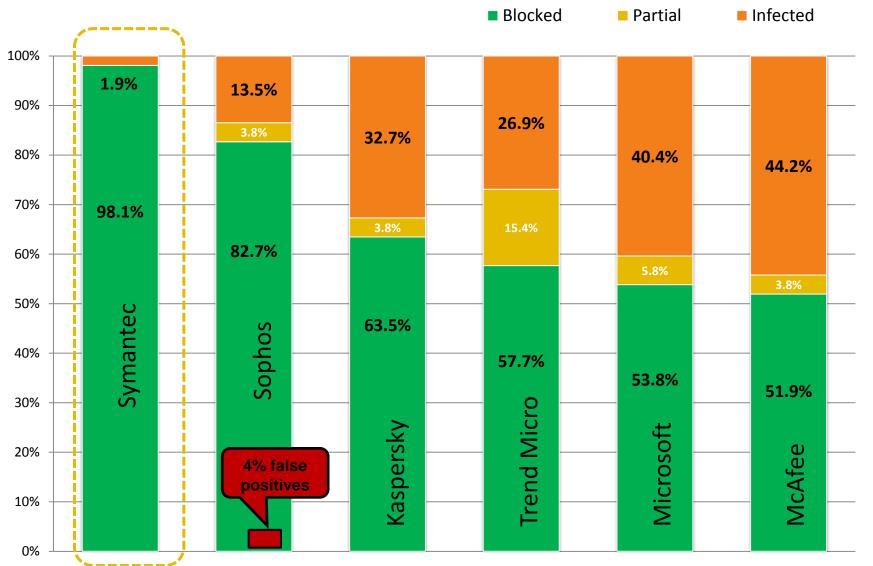


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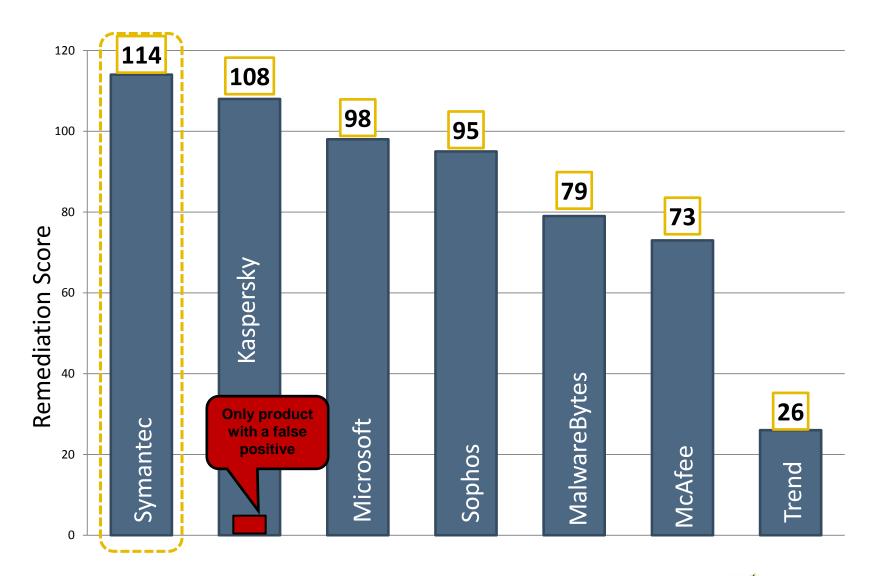
More Effective in Real World Test





More Effective in Remediation

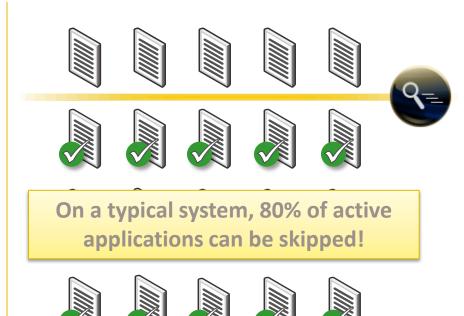




Blazing Performance with Reputation Optimized Scanning







Traditional Scanning

Has to scan every file

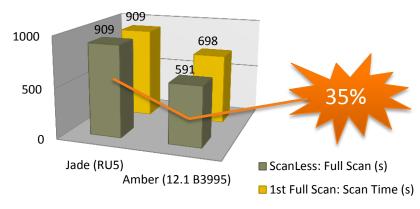
Reputation- Optimized Scanning

Skips any file we are sure is good, leading to much faster scan times

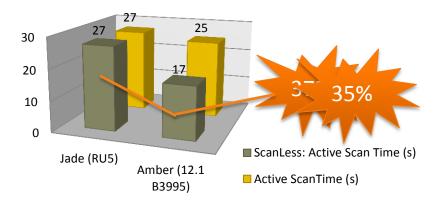
Benefits of ScanLess

- Faster: SEP 12.1 1st scans are 15% faster than that of SEP 11.0 RU5
- Faster: Subsequent scans shows amazing improvement with ScanLess enabled

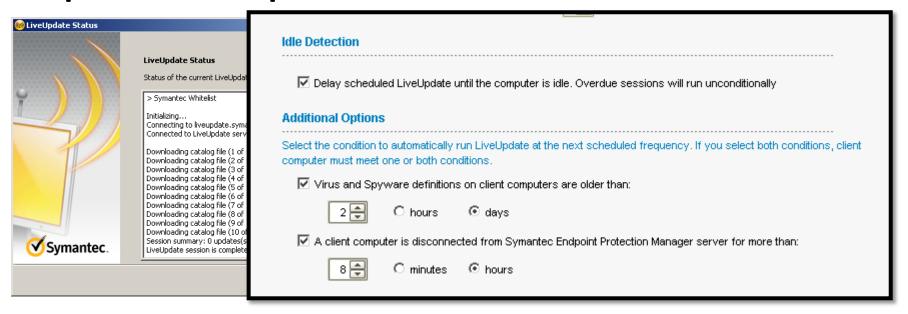
Full Scan of SEP 12.1 vs 11.0 RU5



ActiveScan SEP 12.1 vs 11.0 RU5



Improved LiveUpdate



	Size (MB)	Time (s)	CPU (%)	Write Count
12.1 b3860	1	29	40	28
11.0 RU5	1	82	43	538

- 12.1 content was the same size
- 12.1 update time was 65% faster
- 12.1 CPU usage was7% lower
- 12.1 disk writes were 95% less

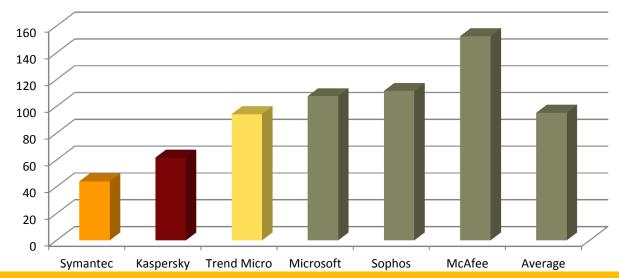
Results:

Symantec Endpoint Protection Scans:

- 3.5X faster than McAfee
- 2X faster than Microsoft



Ranked 1st in overall Performance!

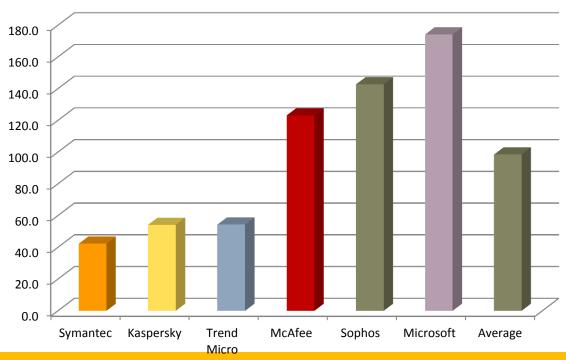


PassMark™ Software, Feb., 2011 - http://www.passmark.com/AVReport



Results:





PassMark™ Software, Feb., 2011 - http://www.passmark.com/AVReport

Symantec Endpoint Protection uses: 66% less memory than McAfee 76% less memory than Microsoft

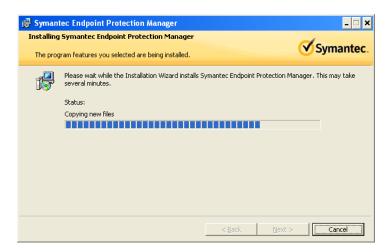




Simple Management Server Installation

- Limited user input required
- Installs in minutes
- Reduced product dependencies for streamlined installation
 - No dependencies on IIS
 - Built-in or remote database
 - Built-in web server
 - Built-in Java runtime
- Increased platform support for better compatibility
 - Windows XP, 2003, 2008, 7

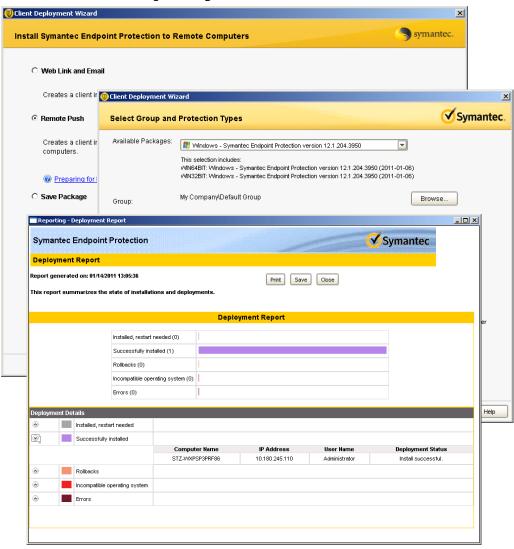








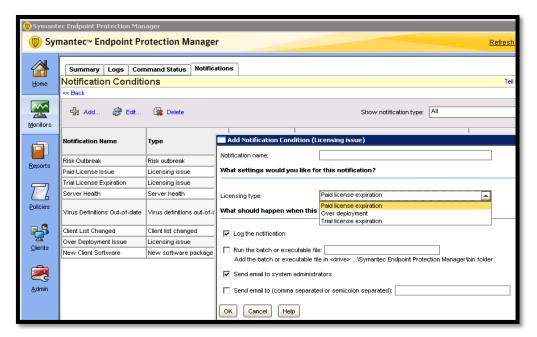
Client Deployment Wizard



- Less package management by auto detecting 32bit/64bit clients
- Immediate protection by including latest policies and content into the packages
- Flexible deployment options to meet different requirements of customers:
 - Remote Push
 - Web Link or Email
 - Export for 3rd Party Distribution
- Visibility into deployment status via the client deployment report



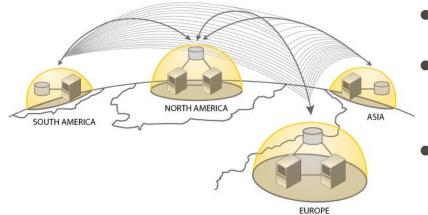
Product Notifications



- Mobile friendly notifications
- Built-in notifications:
 - Virus outbreak
 - Clients with out-of-date definitions
 - Licensing
 - Client changes
 - Server Health
 - New software updates
- Automated actions via the execute of scripts for notifications



Scalable Server Architecture

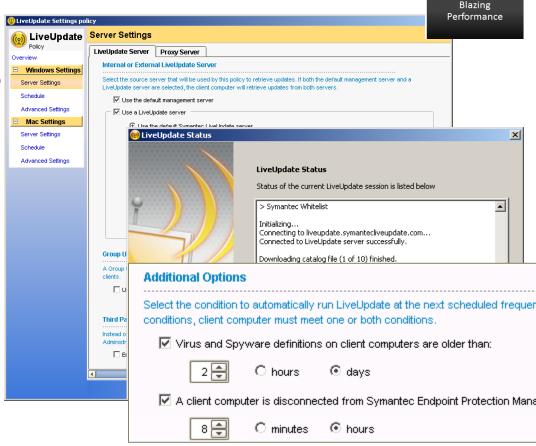




- 80,000 clients per server
- Multi-server architecture for larger client support
- Multi-site architecture to reduced bandwidth by clients
- Fast user interface through efficient database management:
 - Automatic database maintenance
 - Smart database memory caching
- Content distribution via 'delta' files for reduced network traffic

Improved LiveUpdate

- Improved Performance
- Idle Time Update
- Centrally Configure
 Proxy Settings
- Separate Mac and Windows LiveUpdate Settings in a Single Policy



Internal Testing

	Size (MB)	Time (s)	CPU (%)	Write Count
12.1 b3860	1	29	40	28
11.0 RU5	1	82	43	538

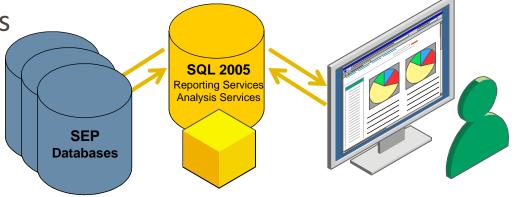
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Powerful Reporting

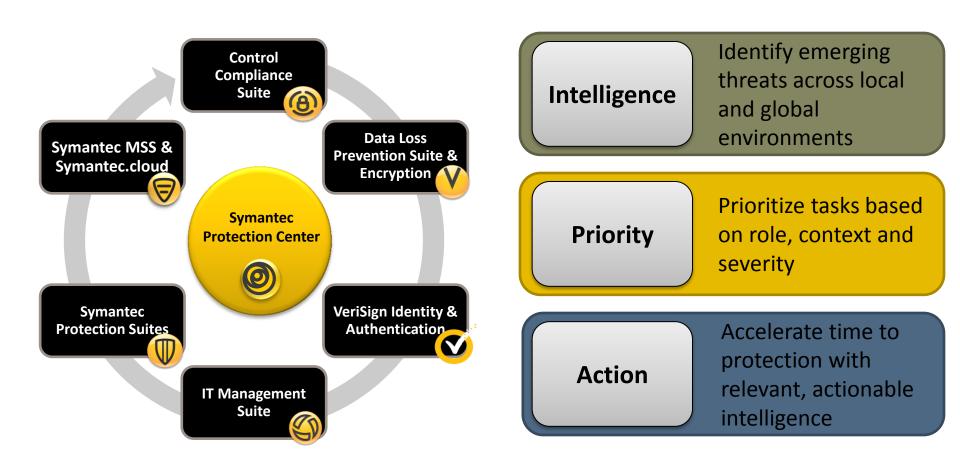
Advanced Reporting & Analysis with IT Analytics™

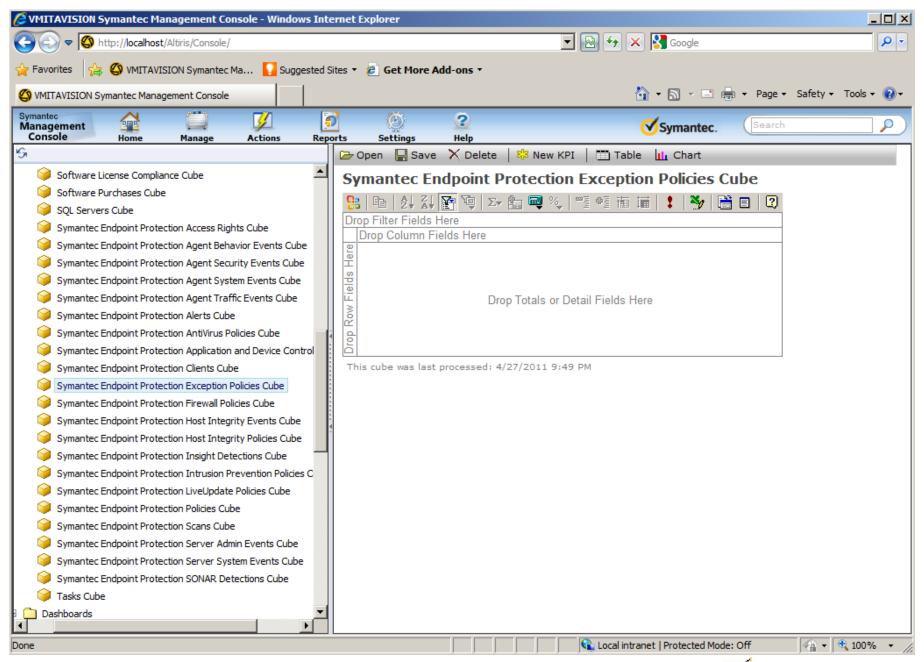
- Advanced ad-hoc data-mining
- Graphical dashboards and easy reporting
- Leverages OLAP Cubes for reporting & multi-dimensional data exploration
- User friendly custom reports
- Export to multiple formats
- Pivot tables and charts



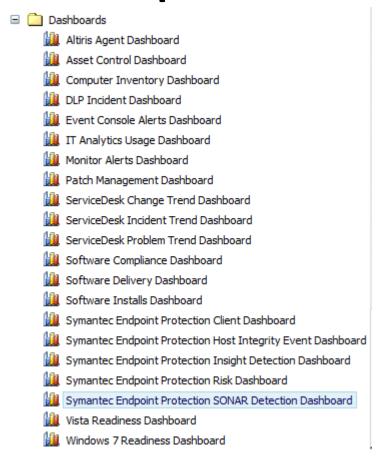
Integration into Symantec Protection Center

Central Management Console





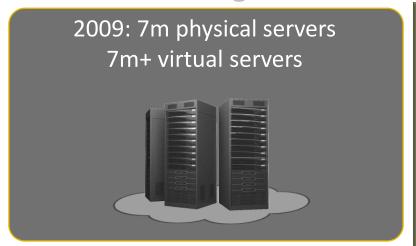
ITA – Reports and Dashboards



Reports Add Remove Programs Application Metering Asset Computer Data Loss Prevention Event Console Installed Files IT Analytics Events Patch Management ServiceDesk Software Delivery Software License Symantec Endpoint Protection Client Version Details Host Integrity Event Details Insight Detection Details Intrusion Prevention Signature Details Scan Trend SONAR Detection Details Virus Alert Details Virus Alert Trend Virus Definition Distribution Details

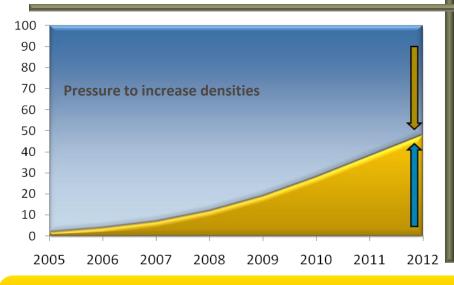
The Problem

Virtualization brings new challenges





The Scan Storm



- Virtualization solves problems
 - Flexibility
 - Deployment of new systems
 - Energy
 - Space
 - Improved Management

Virtualization Features



Virtual Client Tagging

Virtual Image Exception

Shared Insight Cache

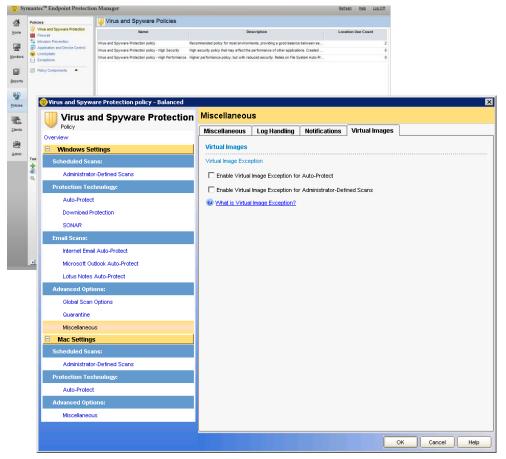
Offline Image Scanning

Resource Leveling

Together – up to 90% reduction in disk IO

Virtual Image Exception – Avoids Unnecessary Scanning





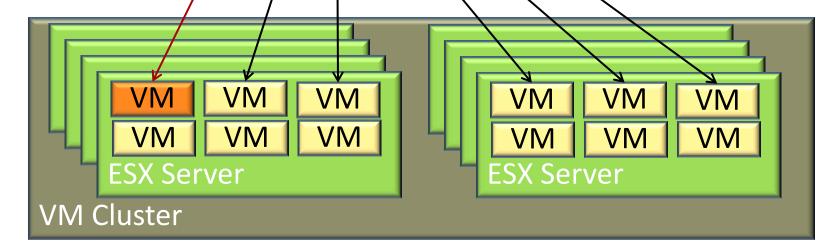
- Set exclusions for files in virtual environments
- Ability to turn on and off Image Exceptions
- Options for silent and automated operation



Shared Insight Cache Server (SIC) File HashDef VerResultAE32D...2011.1...CleanB923E...2011.1...CleanF9123...2011.1...CleanC3FDA...2010.2...Clean

First SEP client needs to scan a file. Queries SIC and finds no record. SEP scans the file and sends the results to the SIC.

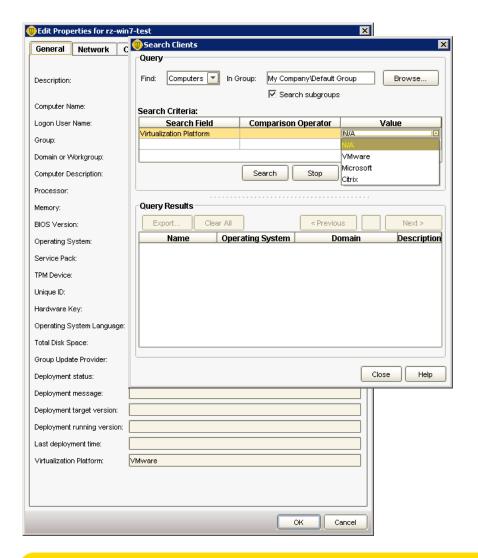
Subsequent SEP clients need to scan the same file. They query the cache server and find the file has already been scanned with the same version of defs and the file is clean. SEP client skips scanning the file.





Virtual Client Tagging – Simplifies Endpoint Management

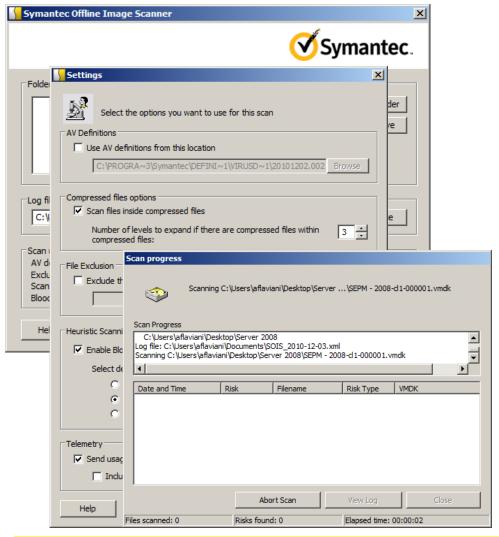




- Ability to determine if the client is running in a Virtual Environment
- The tagging is built into the SEP client
- Works with VMware ESX/i, Microsoft Hyper-V, Citrix Xen
- Client runs the check and reports the information back to the manager
- Virtual Environment Status is in reports, client properties and is searchable

Offline Image Scanner – Detects Malware in VM Images



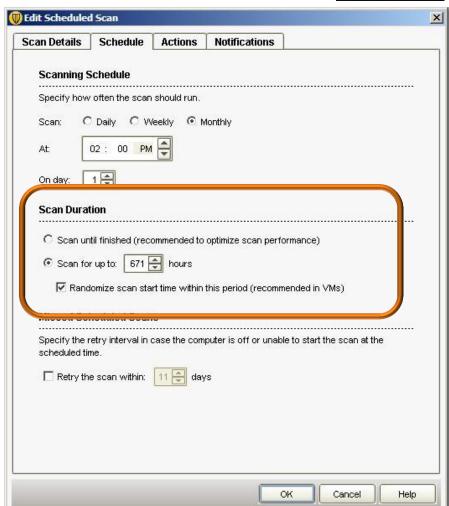


- Avoids spinning up virtual machines with latent infections
- No dependency on other Symantec solutions (beyond AV definitions)
- Doesn't require a traditional install
- Able to scan FAT32 and NTFS file-systems in the guest OS
- Options for silent and automated operation
- Detailed logging/reporting capabilities



Scan Randomization - Prevents AV Storms

- Choose when scheduled scans will run:
 - Daily up to 23 hours
 - Weekly up to 167 hours
 - Monthly up to 671 Hours
- Minimizes concurrent scans across entire pools of virtual machines



The Result: SEP 12.1 Performance Expectations



	Full Scan IO performance improvement
12.1 vs. 11	60% reduction in total disk IO
12.1 Shared Insight Cache vs. 12.1 without	50-80% reduction in total disk IO*
12.1 with Virtual Image Exception vs.12.1 without	50-80% reduction in total disk IO*

^{*} Expected results, final numbers are still pending

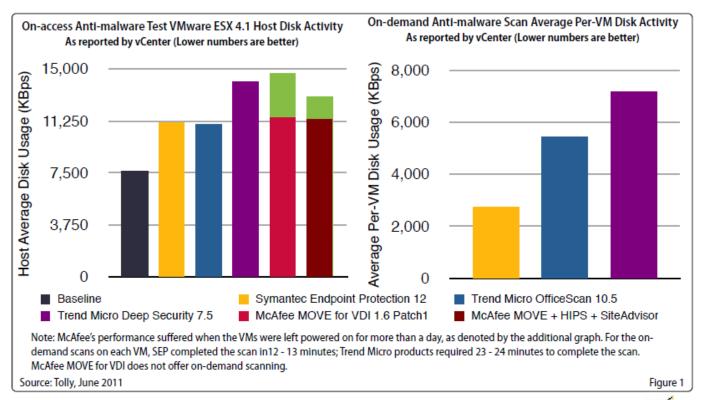
The total benefit to a customer running SEP 12.1 with the virtualization features is an estimated 80%-90% reduction in disk IO for full scans as compared to 11.x.

SEP 12 Performance in Virtual Environments



Results:

- ✓ On-access scan: 20% less disk bandwidth compared to Trend Micro's agentless DeepSecurity
- ✓ On-demand scan: 50% less time, 49% less disk bandwidth



Virtualization Summary: SEP 12 Delivers What Matters



- Full Security
- Higher Density
- Avoid "AV-Storms"

- Easier Management
- No Additional Cost
- Hypervisor Agnostic



