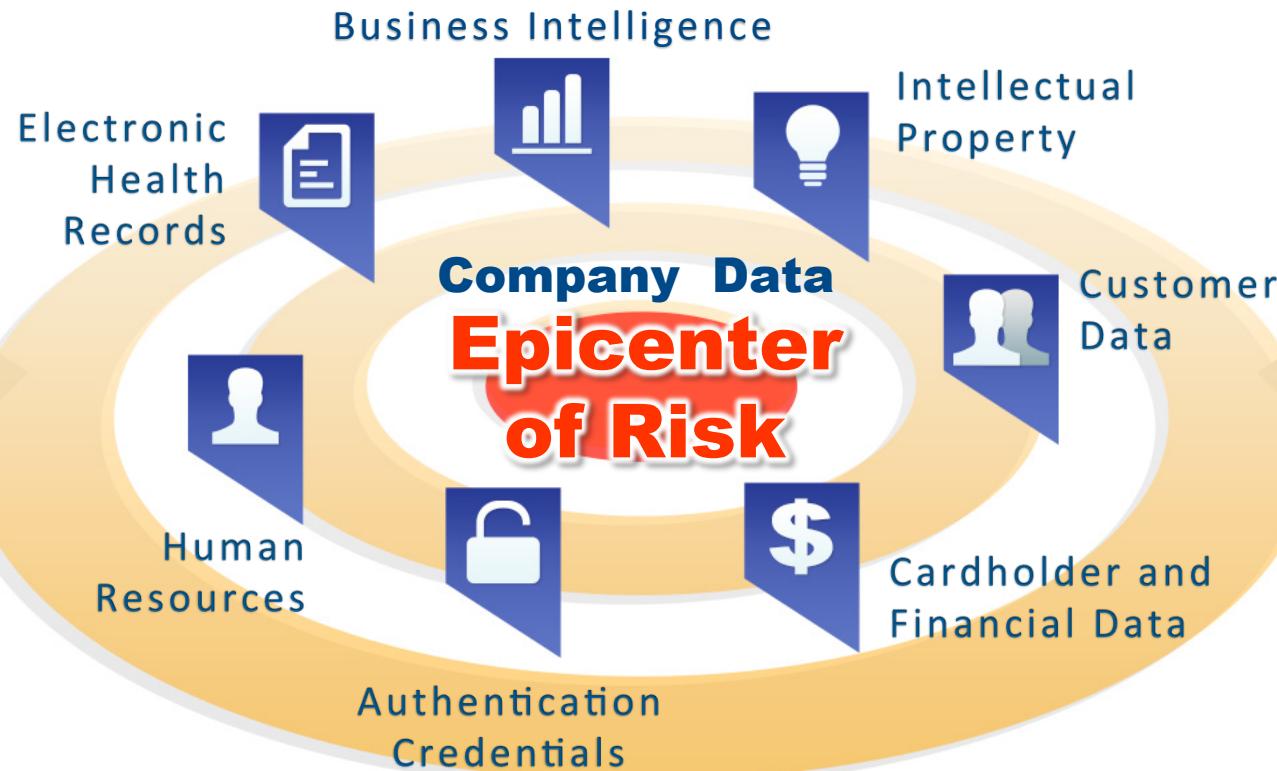




Let's Get Right To The Endpoint

Leveraging Endpoint Data to Expose, Validate,
Triage, and Remediate Security Breaches

Ultimate Goal of Security



What are Your Challenges?



- Securing company assets and data in an every changing world
- Understanding where company sensitive data resides
- Keeping up with the ever changing landscape of threats
- Increasing number of alerts
- Prioritizing and responding to alerts
- Controlling post-breach consulting costs
- Auditing against and enforcing sensitive data policies
- Being right 100% of the time...



Would it be valuable to have a view of what was occurring on potentially affected endpoints?

Unfortunately - Nothing Is Foolproof



- Locks on Doors and Windows



- Alarm System



- Video Surveillance System



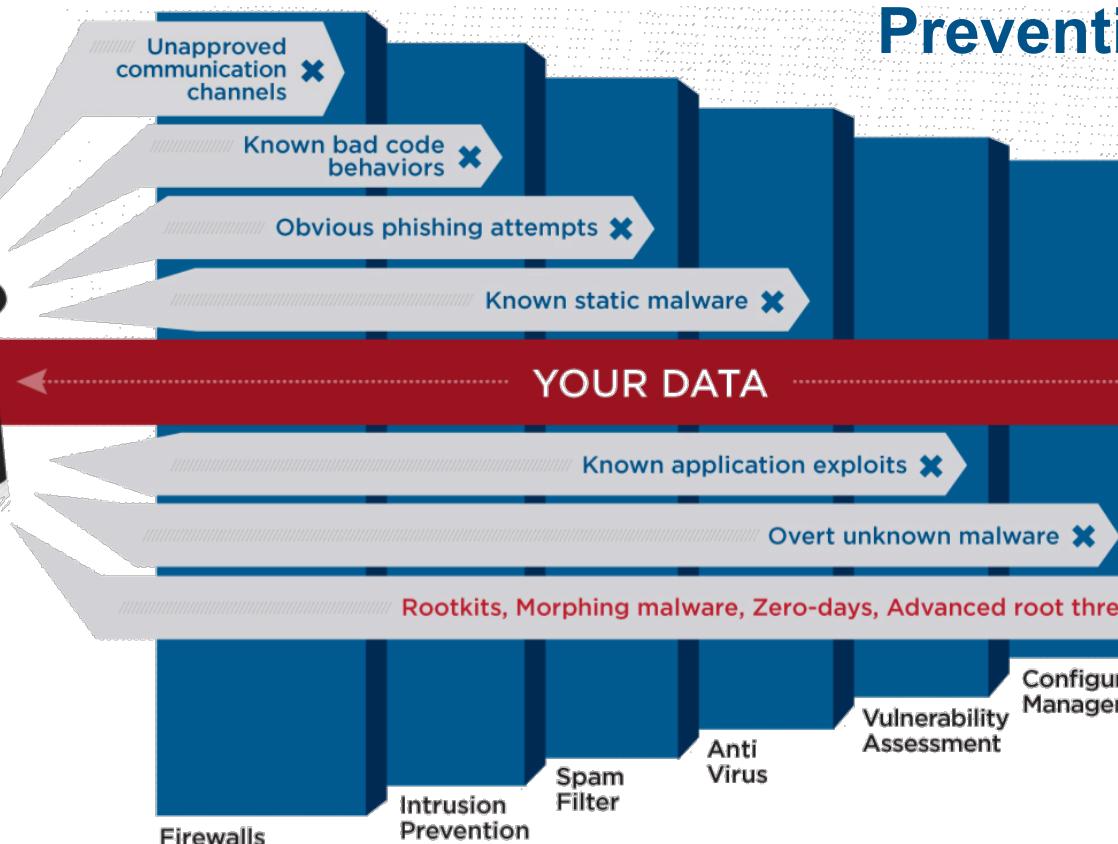
- Signage, Fences, etc.



How Effective Is Your Security Posture?



Preventive measures are important, but...
Now What?



Rootkits, Morphing malware, Zero-days, Advanced root threats, Insider threats

Malvertising Stays One Step Ahead



USA TODAY NEWS SPORTS LIFE MONEY TECH TRAVEL OPINION 73° Camera Search X

Cyberattackers learn targeted advertising tricks

Borrowing targeting technology from the advertising industry, the bad guys are also customizing when — and to whom — they deliver malvertisement.

Ad related to bass guitar 10

[Bass Guitar - guitarcenter.com](#)
www.guitarcenter.com/bass · ★★★★☆ · 16,333 seller reviews
Shop Bass Guitars at Guitar Center. Free Shipping on 1000's of items!
Guitar Center has 3,932 followers on Google+
Every Occasion Gift Cards
Flash Deals-Limited Time & Quantity

[Bass guitar - Wikipedia, the free encyclopedia](#)
en.wikipedia.org/wiki/Bass_guitar ·
The bass guitar is a stringed instrument played
plucking, slapping, popping, tapping, thumping, or
Bass guitar tuning · List of bass guitar manufacturers

[Bass Guitars | Guitar Center](#)
www.guitarcenter.com/Bass.gc ·
Shop our huge selection of Bass Guitars and gear at
GuitarCenter.com. Most orders ship free!
Electric Bass Guitars · Acoustic Bass Guitars · Bass Guitars

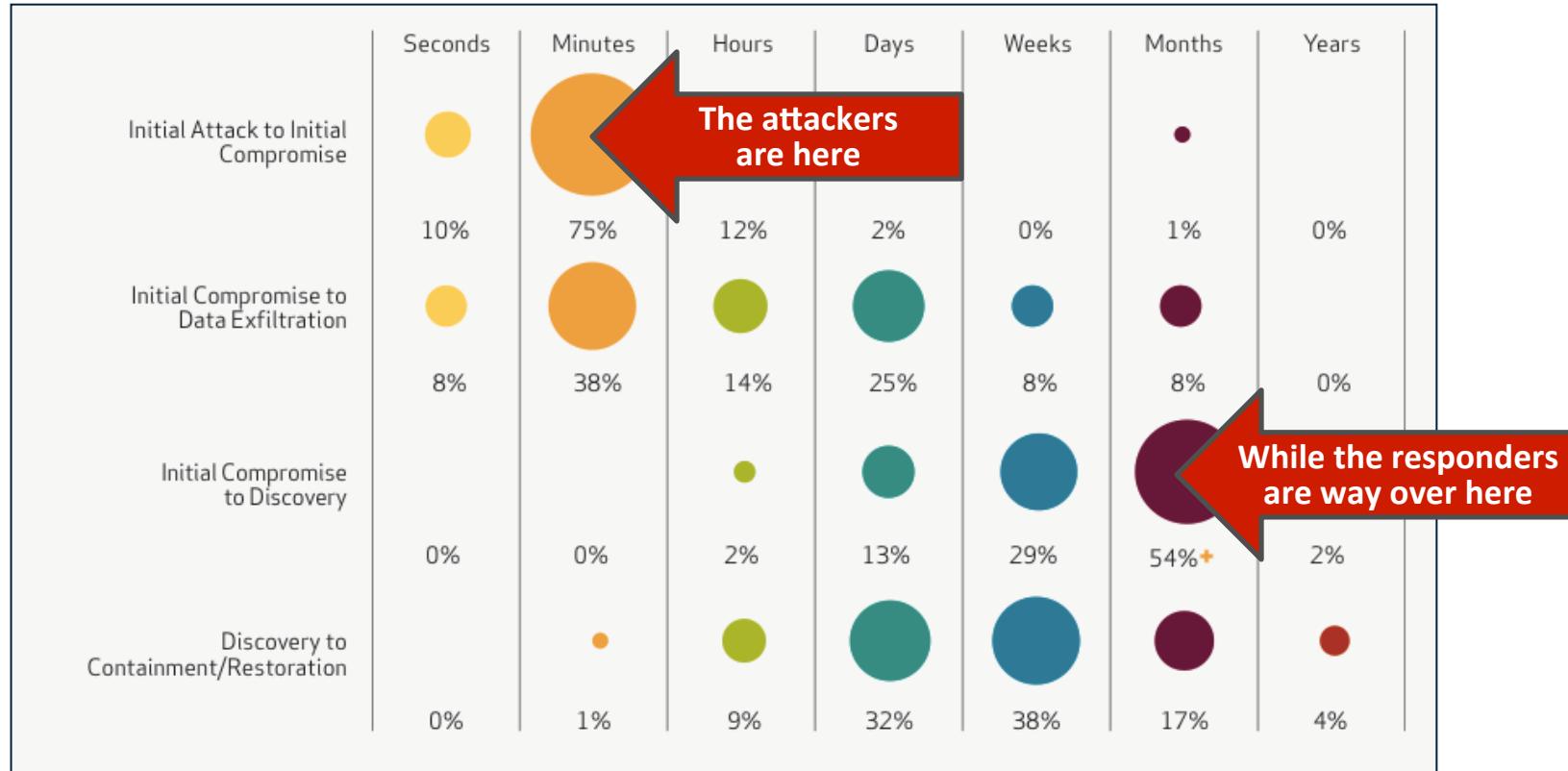
Reported and produced by **Byron V. Acohido**

Shop for bass guitar on Google · Sponsored

Of course, the bad guys have swiftly jumped ahead. The latest Web infections are designed to play possum when a search engine or antivirus Web crawler comes calling. Bad guys do this by employing a black list of their own, one that contains the known IP addresses of the good-guy crawlers.

SOURCE: <http://www.usatoday.com/story/cybertruth/2013/07/15/how-cyberattackers-use-targeted-advertising-methodologies/2518897/>

And Time is of the Essence!



*Source: 2012 Verizon DBIR

Don't Ignore the Warnings

Created: 16 Jul 2013 22:18:14 GMT | Translations available: [日本語](#)



Candid Wueest  SYMANTEC EMPLOYEE

+1
1 Vote



Be honest. Do you really read the warning messages that your browser displays to you? Or do you blindly click the phishing site warnings or the SSL mismatch dialog away? Apparently most users don't seem to care too much about those warnings and click through them quickly. And I doubt that they have memorized the meaning of the warnings and reflect on the consequences each time.

An [interesting study](#) from Google and Berkeley University analyzed 25.4 million warnings from the Google Chrome and Mozilla Firefox browsers. According to their research, on average, 15.1 percent of the users click through the warning for malware-infected sites. Interestingly enough, Mozilla Firefox users on Windows have a click-through rate of only 7.1 percent compared to Google Chrome users on Windows with a 23.5 percent click-through rate, about three times as click-happy.

For phishing site warnings, the average click-through rate is 20.4 percent. In this phishing category, Linux users, with 32.9 percent, click through the warnings a lot more often than the others. Maybe they are more tech-sawy and

SOURCE: <http://www.symantec.com/connect/blogs/don-t-ignore-warnings>

Or A Combination Of Errors



“...it's apparent that we need to review our firewalls to ensure that basic configuration settings such as antispoofing and anti-DDoS are enabled...”

al: Suddenly, our

enterprise-class server that an R&D
at his desk -- which is a no-no . . .

EnCase . . . found something consistent with malware that was previously identified as opening connections to a server in Vietnam from multiple spoofed IP addresses . . . Running a companywide inventory, we found the same malware on some other overseas machines, and on some in our corporate office.”

Computerworld . . .
list of priorities. The
wasn't as bad as it c

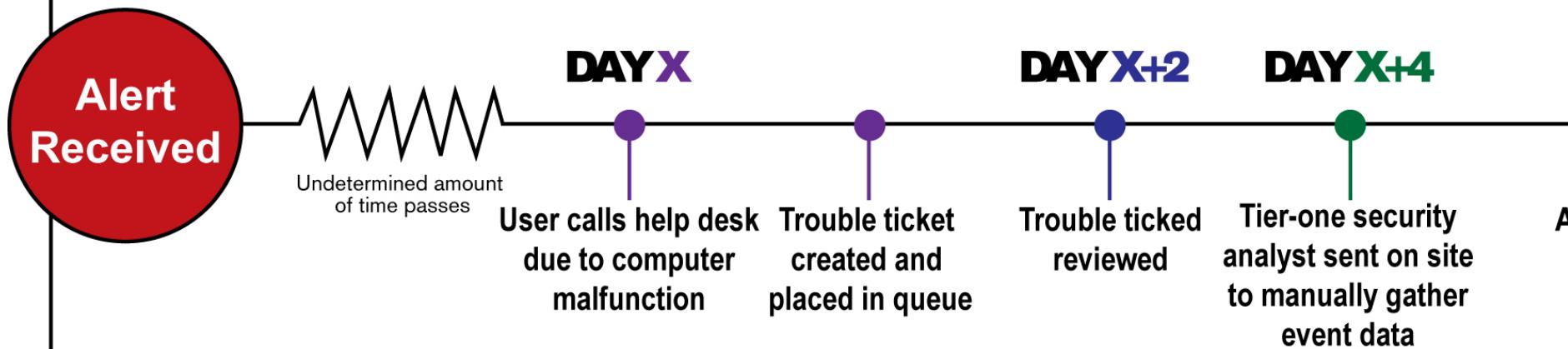
“[T]he incident also makes clear that we need to address some inconsistencies in our endpoint protection compliance...”

SOURCE: http://www.computerworld.com/s/article/9240737/Security_Manager_s_Journal_Suddenly_our_firewall_audit_can_t_wait

Improving Your Security Response

Important Things To Consider

Traditional Incident Response Timeline



- **Broad Encryption support**
- **Broad OS support**
- **Ease, Speed and Flexibility of deployment and configuration**
- **Forensic-grade visibility**
- **Review capability**
- **Policy enforcement mechanism**



- **Protecting Company Data Is Number One Goal!**
- **Compliance**
 - HIPAA, PCI-DSS, Data breach notification laws, risk mitigation
 - Intellectual Property handling policies
 - Proliferation of laptops/tablets has increased risk of data loss
- **Eliminate risk of sensitive data in unauthorized locations**
- **Prioritize incident response**
- **Enable definitive policy enforcement**



Help Is Available

For The “Now What?”

The EnCase Cybersecurity Solution



■ Endpoint Incident Response

- Mitigate the **RISK** of successful attacks through rapid validation, comprehensive scope assessment, and containment of security incidents
- Reduce the **TIME** delay between compromise, detection and response
- Reduce the **COST** and overhead of incident response leveraging existing people and technologies

■ Endpoint Sensitive Data Discovery

- Mitigate the **RISK** of sensitive data in unauthorized locations
- Reduce the **TIME** it takes to locate sensitive data and enforce regulatory and policy compliance
- Reduce the **COST** associated with data discovery processes that don't easily scale and lack definitive enforcement



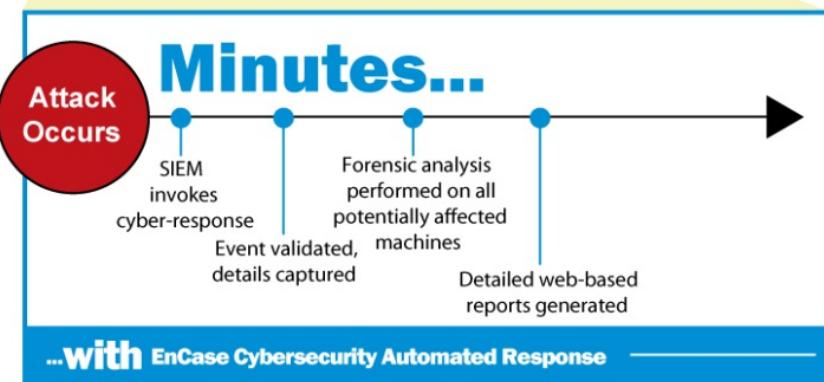
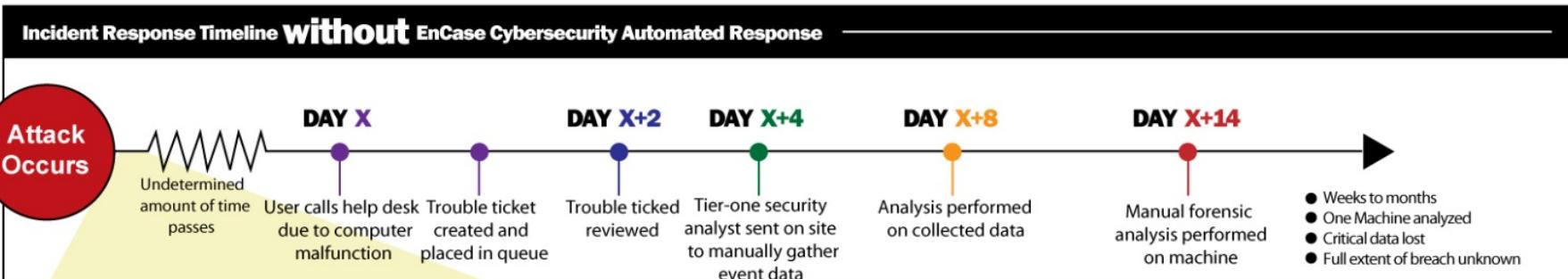
How EnCase Helps Mitigate the Risks of a Breach



- **System Integrity Assessments** – Expose unknowns and known bad via scheduled audits
- **Large scale volatile data analysis** – Discover system anomalies and similarities, expose attack artifacts
- **Near-match analysis** – expose iterations of morphed code and variations of detected threats
- **Deep forensic analysis** – completely and thoroughly investigate any anomaly or breach
- **Remediation** – immediate address risk by killing running process and wiping related disk artifacts
- **Integration with SIEM and alerting systems** – visibility into potentially affected hosts the moment an alert is generated



Automating Incident Response Data Collection



- **Entire process takes minutes**
- **All potentially affected machines analyzed**
- **Critical data preserved**
- **Full extent of breach realized**

How EnCase Helps Find and Secure Sensitive Data

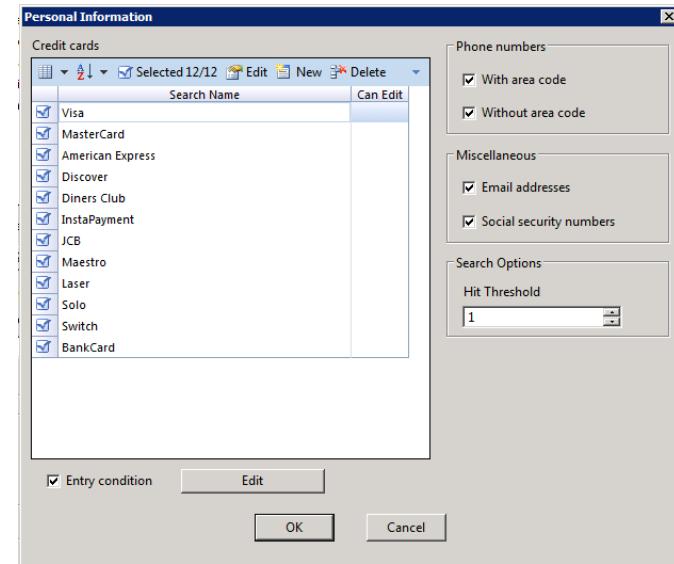


■ Comprehensive visibility

- Covers multiple operating and file systems, including email and document repositories
- Kernel level scans – locates deleted, in use and otherwise hard to see data locations
- Analyze metadata to quickly determine origin and where else errant sensitive data may reside

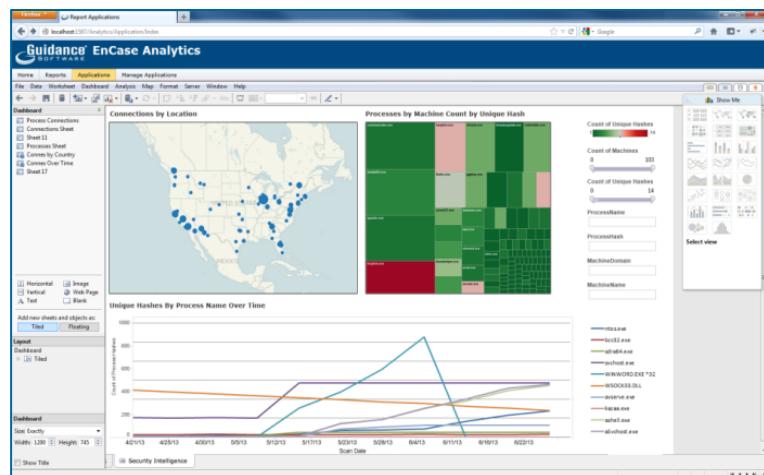
■ Built in templates for PCI and PII data, configurable for other data formats (account numbers, electronic health records, IP, etc.)

- Scheduling capability to keep you covered
- Web-based review and tagging
- Securely wipe non-compliant data



- **EnCase forensic capabilities will investigate how the malware compromised the endpoint(s).**
- **What was the delivery mechanism (e.g., USB drive, web page, email, etc.).**
- **What activity occurred before the compromise, during and after.**
- **What type of data was possibly exposed or compromised.**
- **Have we identified all of the compromised systems?**

What About A Different Approach?

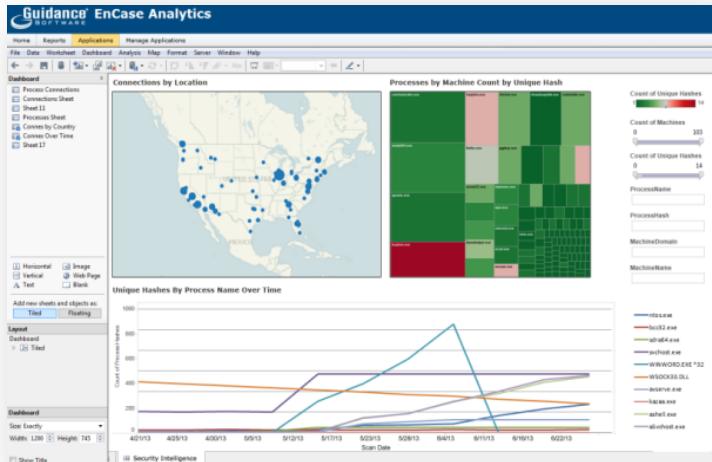


Challenges With Today's Current Approach



- “Rule” based security is limited
- Knowledge of what to look for is required
- Endpoint visibility is lacking
- Historical trends are not considered
- Correlation of endpoint data points is overlooked or missing
- Time required to manually audit system configurations
- Overall, too much data to analyze

What If You Had A Bird's-eye View to Security Info



- Not constrained by signatures, indicators, behaviors, or heuristics
- Looking across all endpoints and servers, where threats ultimately hide
- Providing multi-dimensional analysis of unstructured endpoint data
- Exposing gaps in security posture

What If Your Data Offered A Visual Representation



- **Allowing quick visualization of undetected risks or threats**

- Exposing suspicious patterns, commonalities and anomalies
- Spotting unusual changes over time

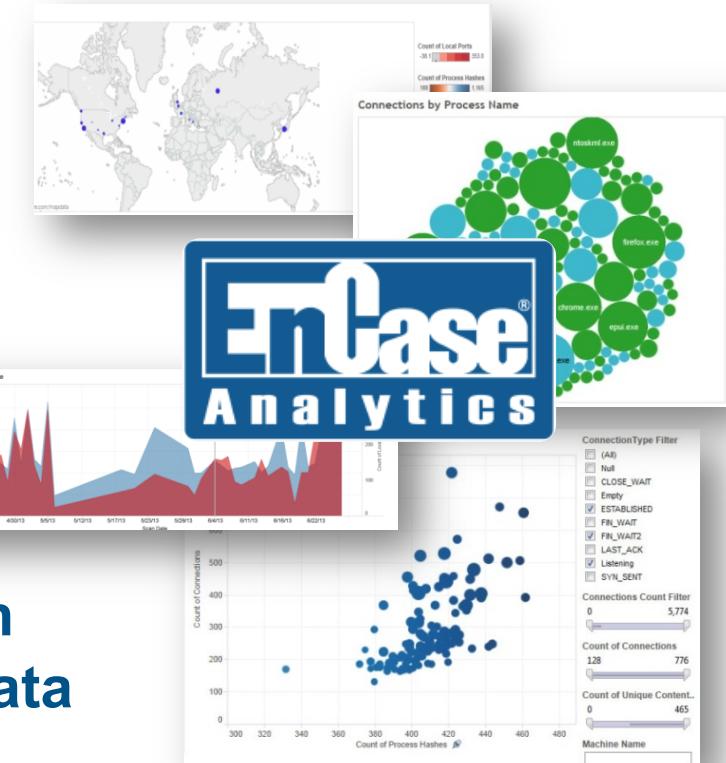
- **Interactive interface allowing on-the-fly adjustments so you can zero in on the threat**



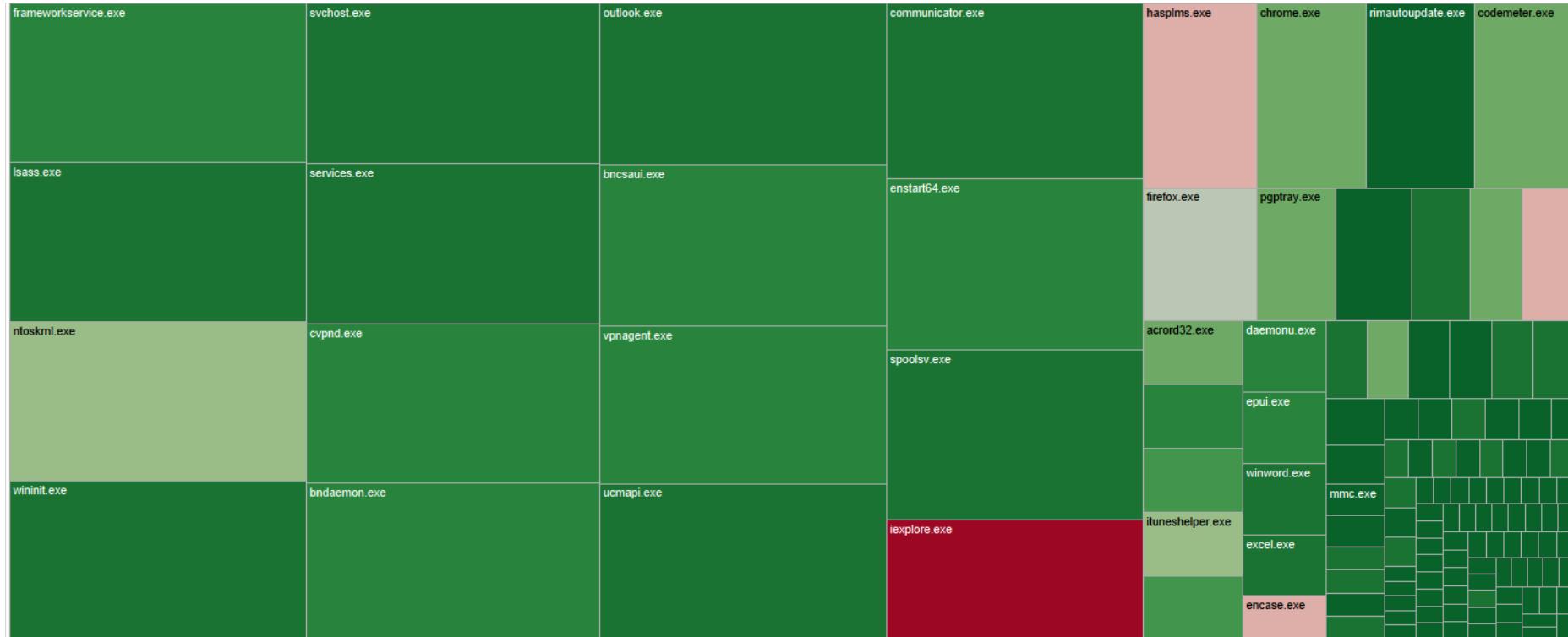
Introducing EnCase Analytics



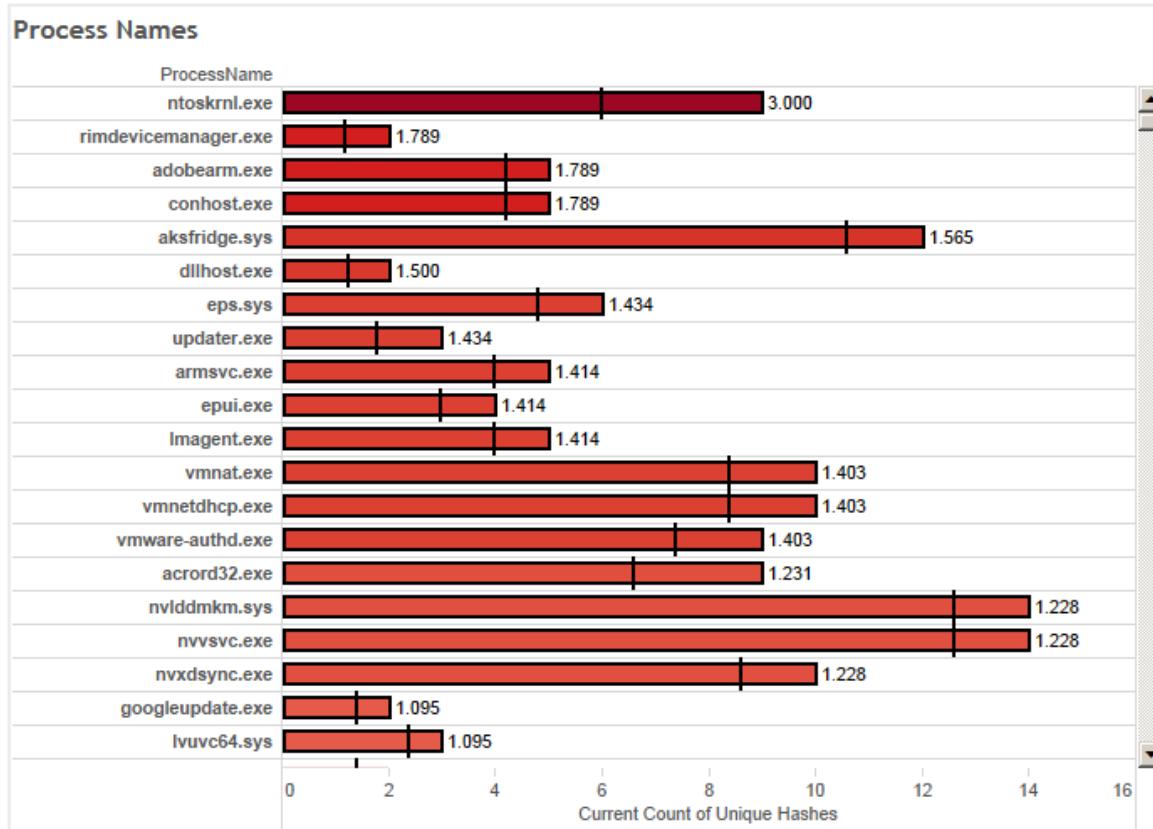
- Security insights via complete endpoint visibility
- Comprehensive view into security risks and threats
- Quickly derive insights from visual representations of data
- Expose unknown threats through statistical analysis of endpoint data



EnCase Analytics: Standard Configuration Variants



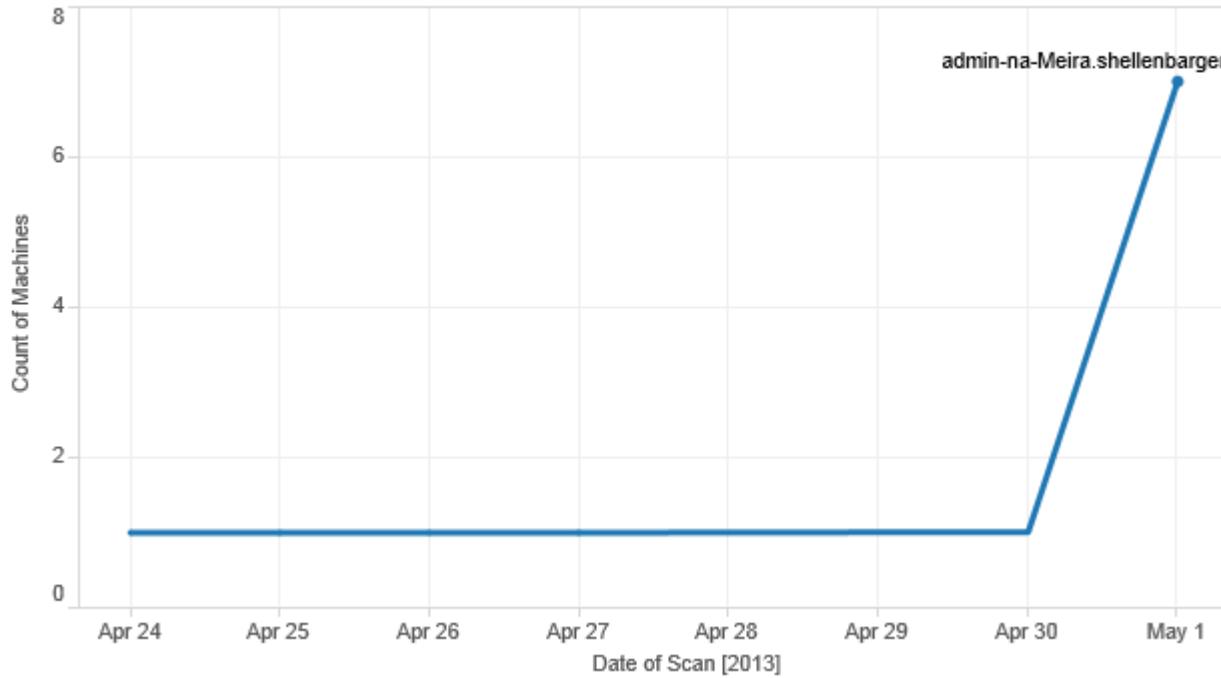
EnCase Analytics: Process Variant Anomalies



EnCase Analytics: Account Trends Over Time



Count of Machines by Account Name



■ World Leader in Computer Forensics, eDiscovery and Incident Response

- Company Founded in 1997
- Publicly Traded Company on NASDAQ (ticker symbol = GUID) Since 2006
- 40,000 EnCase Customers World Wide
- Over 1,500 EnCase Enterprise Customers
 - More than 65% of the Fortune 100
 - More than 40% of the Fortune 500
- 300+ EnCase eDiscovery Customers, 200+ EnCase Cybersecurity Customers
- 50,000 people trained on EnCase

Thank You

Mel Pless, Sr. Director, Solutions Consulting, Guidance Software

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