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The Time Is Now—A New Era for Cybersecurity

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Increasing Attacks

In 2014 has your enterprise experienced an increase or decrease in security attacks as compared to 2013?

More Attacks 

76.57%

Fewer Attacks 

23.43%

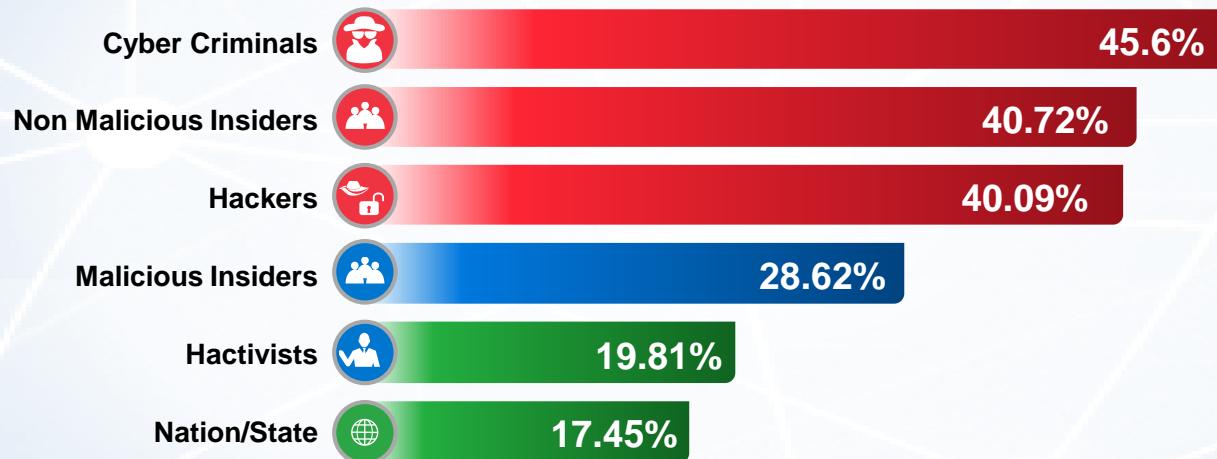
82.5%

Enterprises expect to be breached in 2015

Source: *State of Cybersecurity: Implications for 2015, An ISACA and RSA Conference Survey*

The New Adversaries

Which of the following threat actors exploited your enterprise in 2014?



Source: State of Cybersecurity: Implications for 2015, An ISACA and RSA Conference Survey

The New Enterprise Landscape



EVOLVING BUSINESS
ENVIRONMENT



MORE DANGEROUS
THREAT LANDSCAPE



COMPLEXITY &
FRAGMENTATION

Dissolving Security Perimeter

Embracing Mobility and Cloud Computing

Extending Value Chain of Partners /
Supply Chain / Contractors

More Than Just Malware

Threats Vectors Span Multiple
Channels

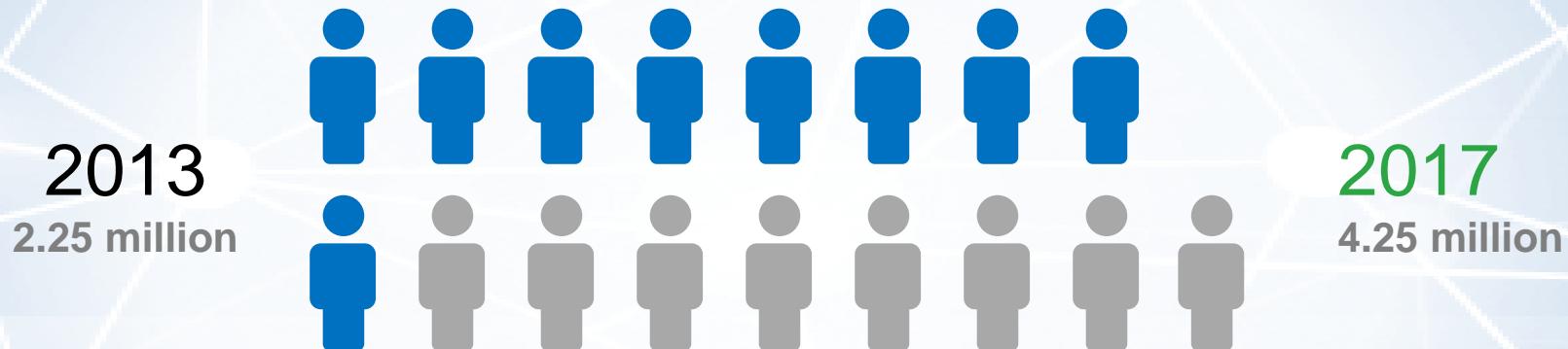
Insider Threat Widening

Too many tools

Too many alerts

Not enough skills and manpower to
deal with this complexity

Cybersecurity Skills Gap Grows



The shortage of skills compounds the rise in security incidents

Source: 2013 (ISC)2 Global Information Workforce Study

 = 250,000

Chasing Alerts is a Failing Strategy

Malware Containment Survey Results:

Hours Spent on Alerts

**198.8**

Approximate # of hours per week spent investigating infections

**229.9**

Approximate # of hours per week spent cleaning or fixing infected devices

**395**

Approximate # of hours per week wasted chasing erroneous alerts

Source: Ponemon Institute, 2015

Malware Containment Survey Results: Malware Alerts Per Week



Average # of malware alerts per week

4%**19%****40%**

Alerts that get investigated

Reliable alerts

Infections that go undetected

How Do We....

- ◆ Continue to fuel business velocity?
- ◆ Absorb innovations as needed for the business?
- ◆ Stop the adversary from dictating our priorities?
- ◆ Confidently navigate the risks in today's changing IT environment?
- ◆ Become resilient?



Need a Strategic Response



EVOLVING BUSINESS
ENVIRONMENT



MORE DANGEROUS
THREAT LANDSCAPE



COMPLEXITY &
FRAGMENTATION

1 ADVANCED THREAT PROTECTION

THREAT DEFENSES THAT MODEL THE BEHAVIOR OF COMPLEX MULTI-STAGE ATTACKS.

2 END-TO-END VISIBILITY

CONTINUOUSLY MONITOR ACTIVITIES INCLUDING USER BEHAVIORS ACROSS YOUR ENTERPRISE.

3 ADVANCED ANALYTICS

INTUITIVELY TURN DATA INTO INSIGHTS AND ANSWERS THAT DRIVE ACTION.

4 ADAPTIVE SECURITY

APPLY CONTEXT RICH INTELLIGENCE TO STOP AND CONTAIN EMERGING THREATS.

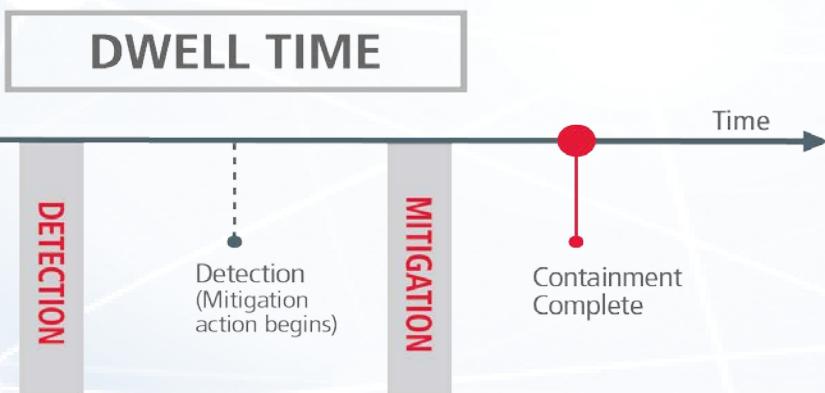
Focus: Dwell Time Reduction

206 Days

Mean time to identify a breach¹

69 Days

Mean time to contain a breach¹



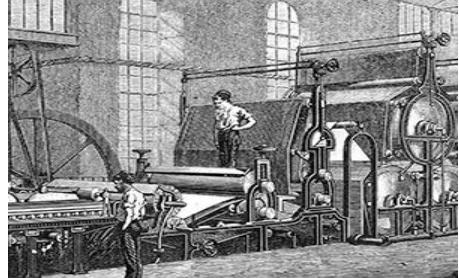
"It is better to have 100 attackers on your network for 10 minutes than a single attacker for 6 months. If dwell time trends down then cyber security is improving"

Jeff Brown, Raytheon CISO

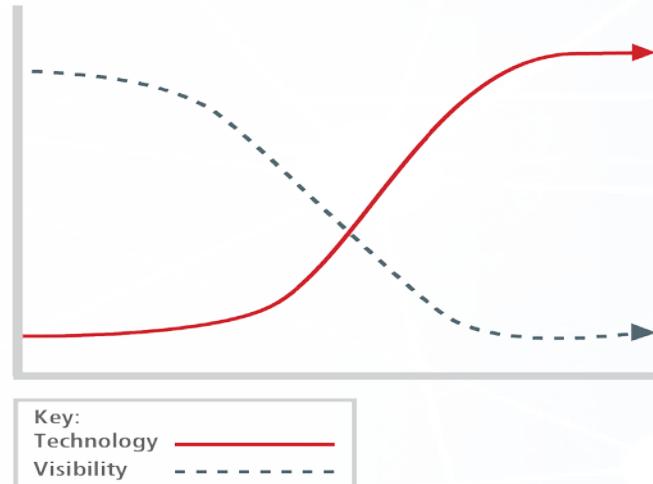
¹Cost of Data Breach Study: Global Analysis, Ponemon Institute, 2015

End-to-end Visibility

- ◆ The digital revolution has obfuscated visibility
- ◆ Organizations cannot manage threats they cannot see



Industrial Age



Restored Visibility



Digital Age

But is visibility really just more content?

Context ~~Content~~ is KING!



“Context is critical to turning huge amounts of security data into actionable insight and identifying those things that represent the most risk in an organization.”

- Neil MacDonald, Gartner

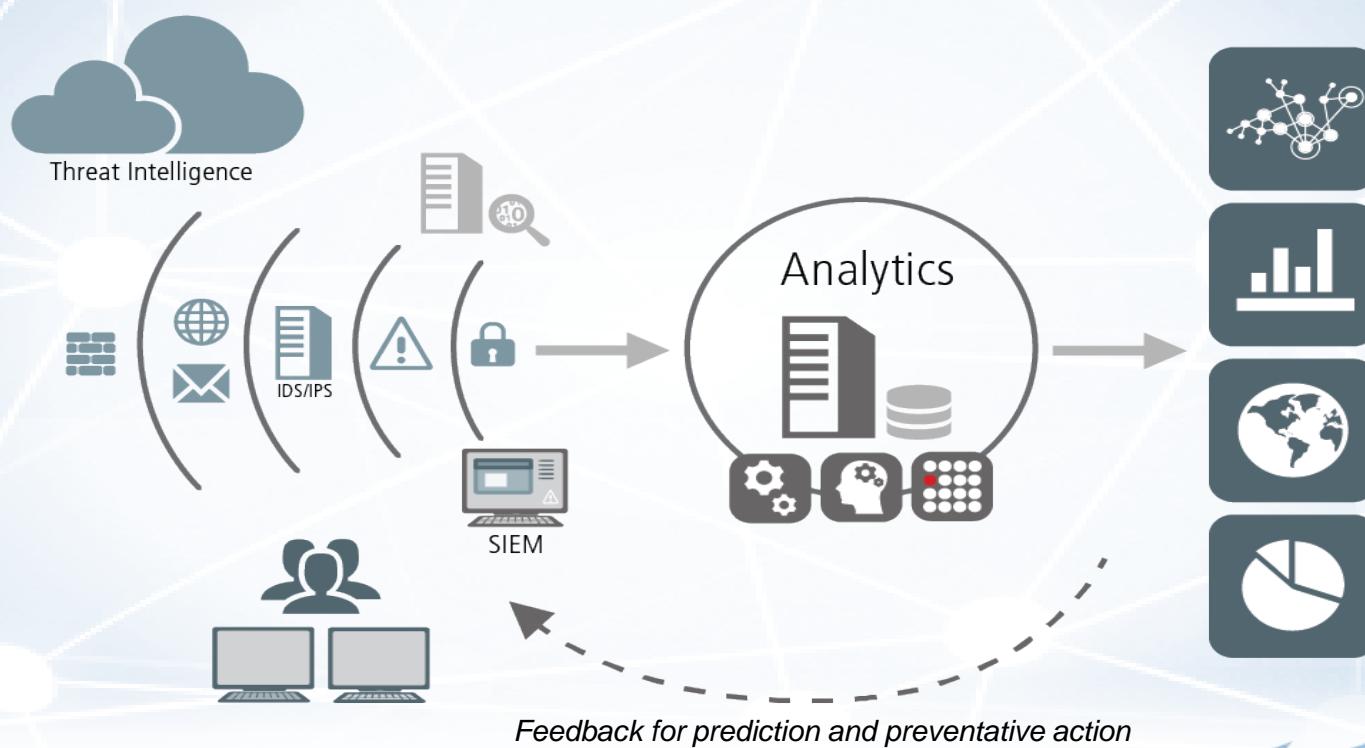
Analytics Takes Center Stage

Understand and Prioritize

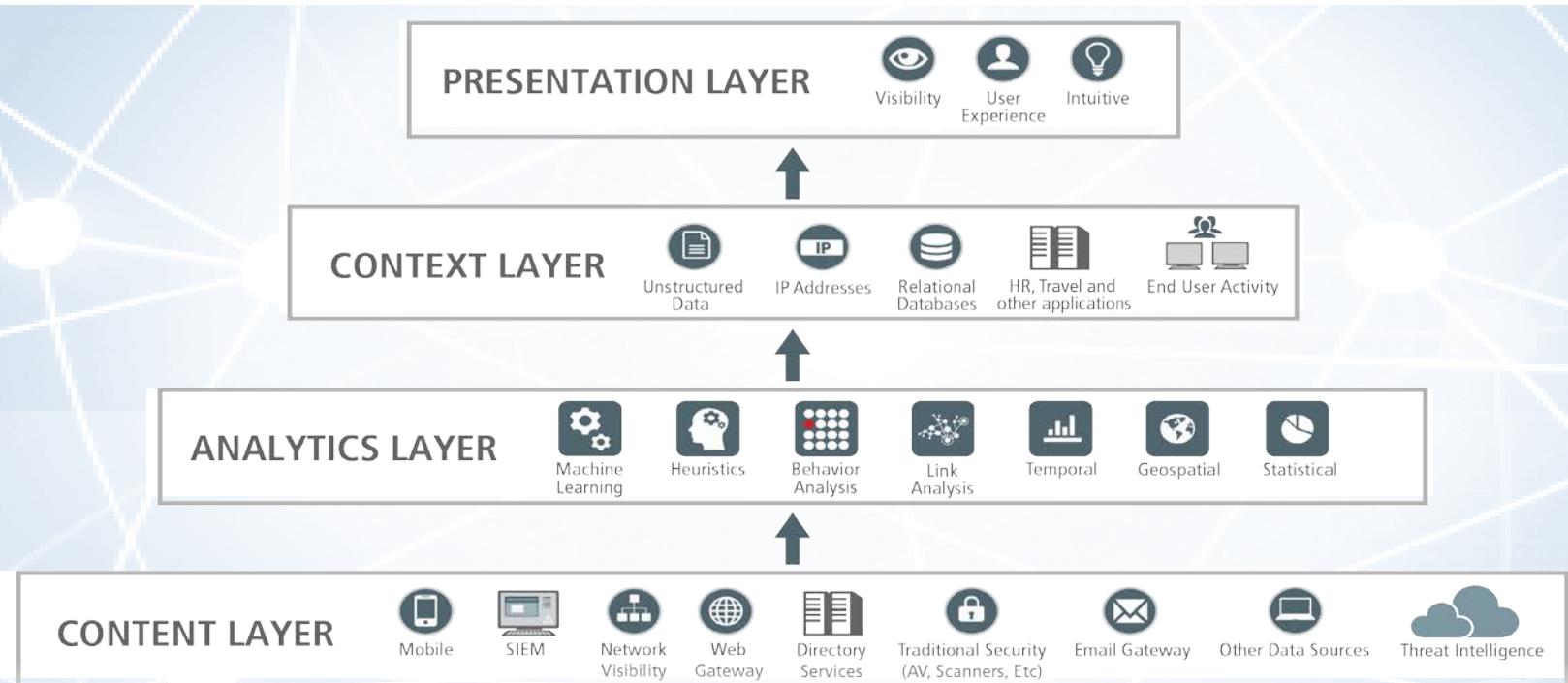
- ◆ Automation can help plow through mountains of information
- ◆ Discover more about an entity that you know about (reactive/prevent)
- ◆ Investigate to understand patterns, find anomalies (proactive/detect)



Adaptive Security boosts Resiliency



Cyber Risk Management Approach



Take Aways

- ◆ A determined adversary will break in – not a matter of ‘If’ but ‘When’
- ◆ Prevention is ideal but need containment strategies
- ◆ Rethink cyber strategies to adapt to the landscape
- ◆ Resiliency is key to operation in the new normal

RSA® Conference 2015

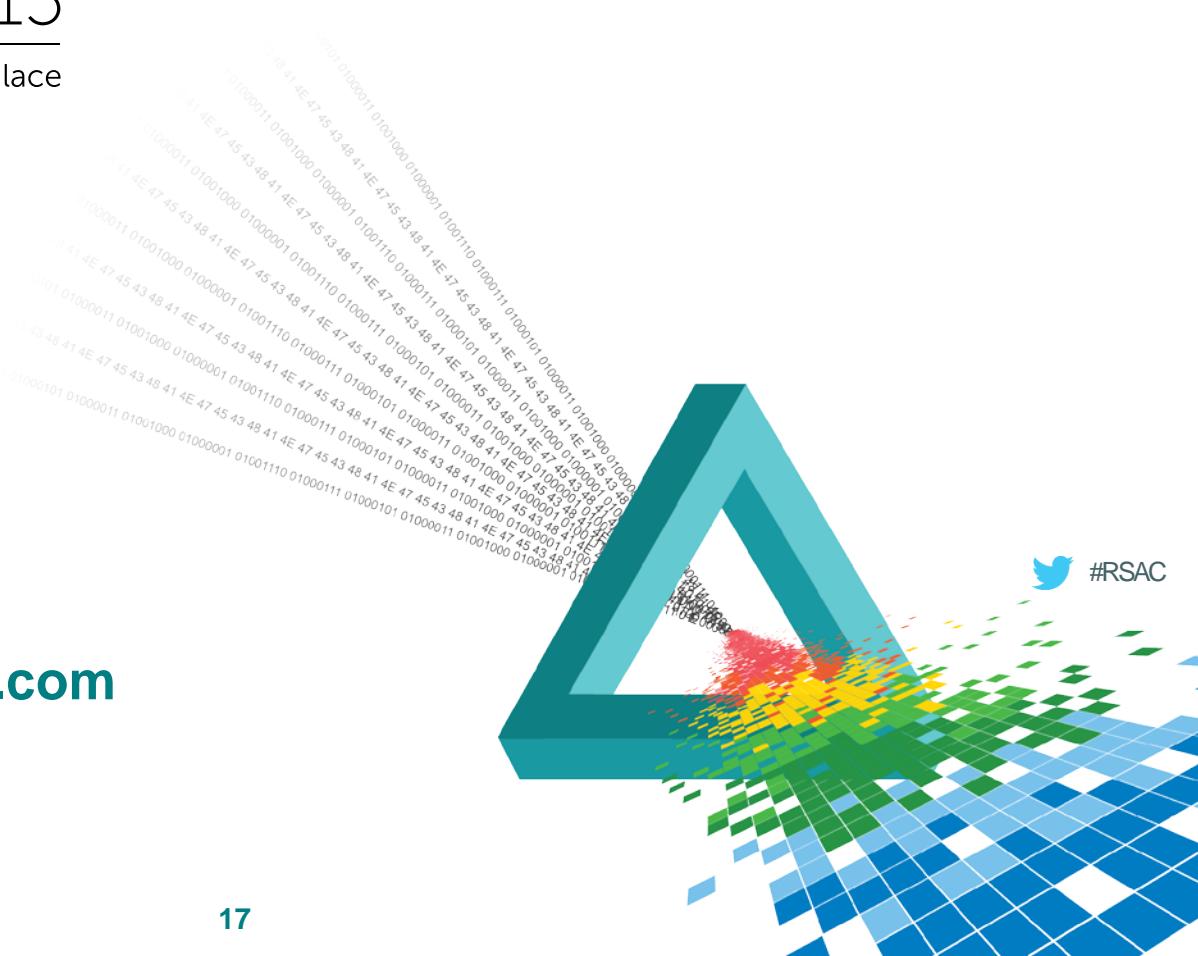
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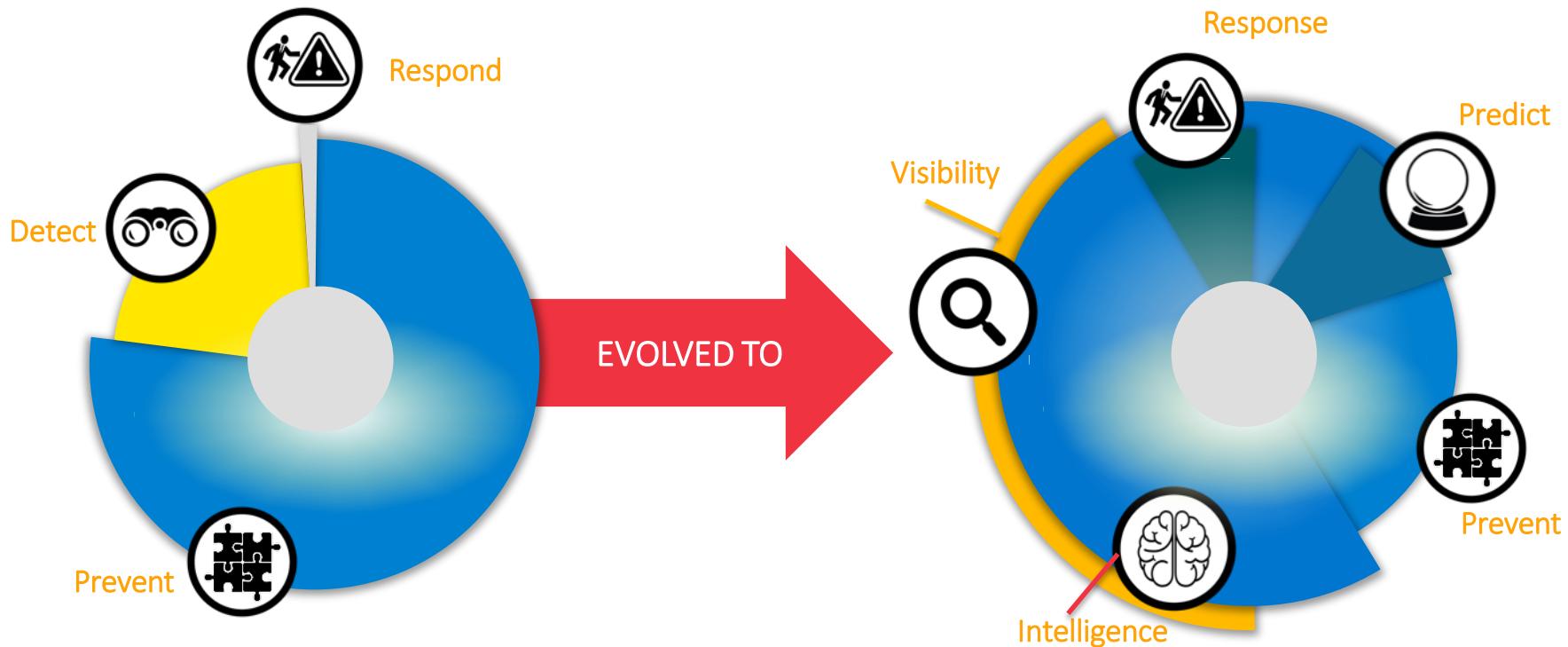
@nt_hacker

CHANGE

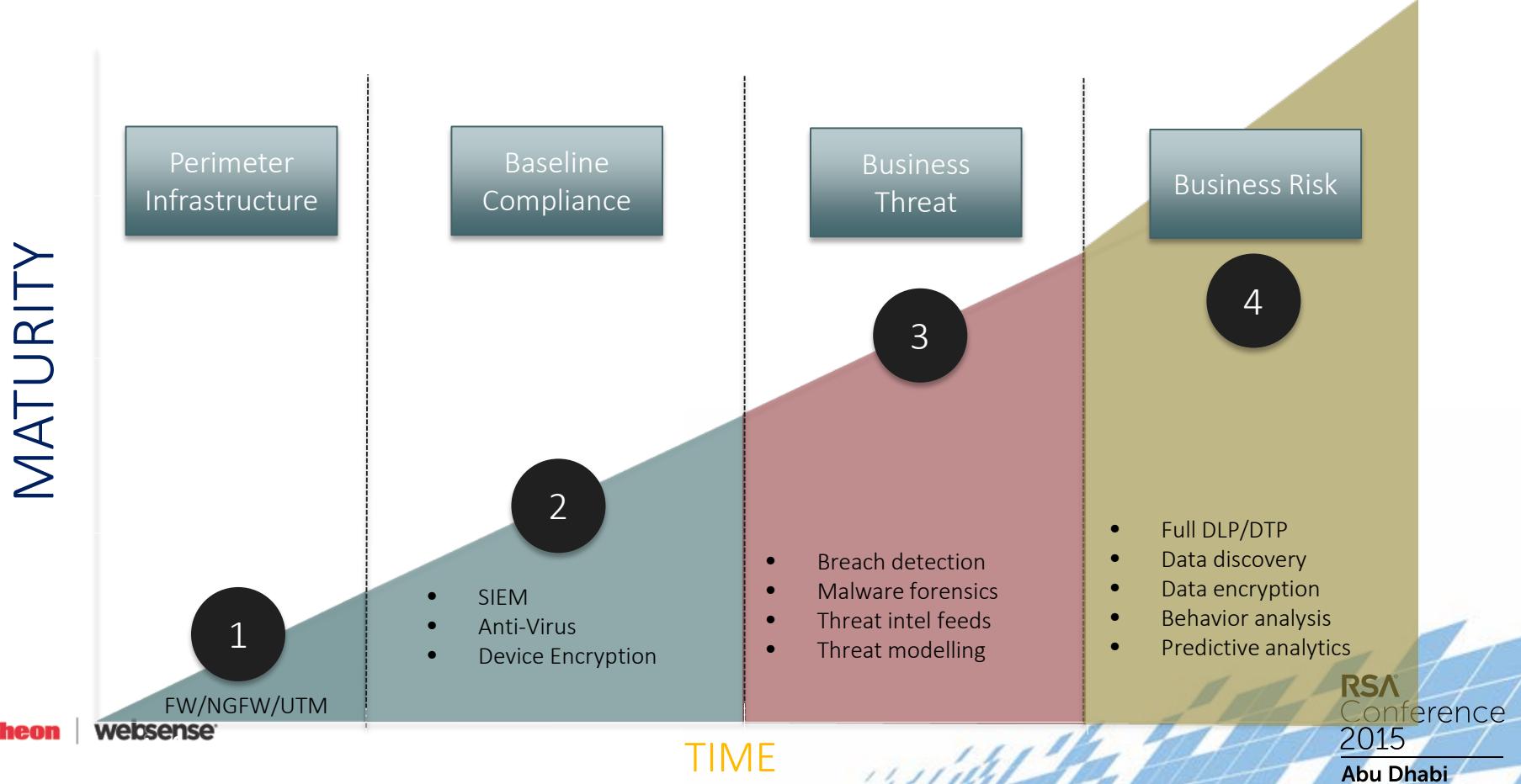
Challenge today's security thinking



Intelligence, Visibility & Prediction (2000-2015)



From infrastructure security to risk management



Threat landscape

Top Threats	Current Trends	Top 10 Threat Trends in Emerging Areas						
		Cyber-Physical Systems and CIP	Mobile Computing	Cloud Computing	Trust Infrastr.	Big Data	Internet of Things	Netw. Virtualisation
1. Malicious code: Worms/Trojans	↑	↑	↑	↑	↑	↑	↑	↑
2. Web-based attacks	↑	↑	↑	↑	↔	↑	↑	↑
3. Web application attacks /Injection attacks	↑	↑	↑	↑	↑	↑	↑	↑
4. Botnets	↓		↑	↑				
5. Denial of service	↑	↑		↔	↔	↑	↑	↑
6. Spam	↓	↑						
7. Phishing	↑		↑		↑	↑	↑	↑
8. Exploit kits	↓		↑		↑		↑	
9. Data breaches	↑			↑		↑	↑	↑
10. Physical damage/theft /loss	↑	↑	↑		↑	↑	↑	↑

Source: <https://www.enisa.europa.eu/activities/risk-management/evolving-threat-environment/enisa-threat-landscape/enisa-threat-landscape-2014>

Threat landscape

Region Report

Middle East Africa

Detection

Generic

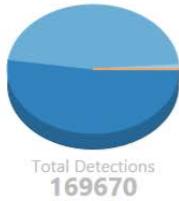
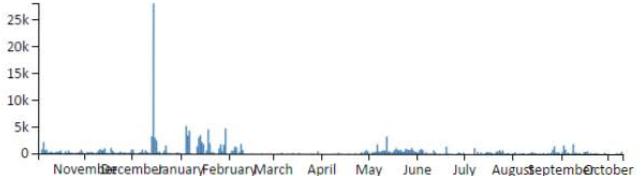
Injection

Proxy

BrowseFox

SearchProtect

Country Report: United Arab Emirates



Trend	Identifier	Stages Identified	Detections
	Generic		1567
	Rerdom		965
	Proxy		507
	Injection		491
	Dyre		364
	FraudKit		174
	FakeSoftware		33
	Mal_TDS		28
	FakeEmailPortal		23
	Vawtrak		13

Stage Definitions

- Recon - Research performed by cybercriminals to gather intelligence that improves the probability ...
- Lure - An inducement, such as a targeted email or manipulated search engine result (SEO), designed ...
- Redirect - When a link in an email or on a web page (visible or hidden) leads to an unexpected ...
- Exploit Kit - A packaged set of tools designed to analyze target systems for open vulnerabilities, ...
- Dropper File - The file downloaded onto the victim's computer that contains the malware. It is a ...
- Call Home - The malware contacts command and control servers (C&C) for instructions, updates, and ...
- Data Theft - The malware sends targeted data to the cybercriminals. Common tactics include slow ...

Threat actors

THE ONLINE ANARCHIST

THE BANKER

THE CONTRACTOR

THE ARMS DEALER

THE SPECIAL AGENT

THE INSIDER THREAT



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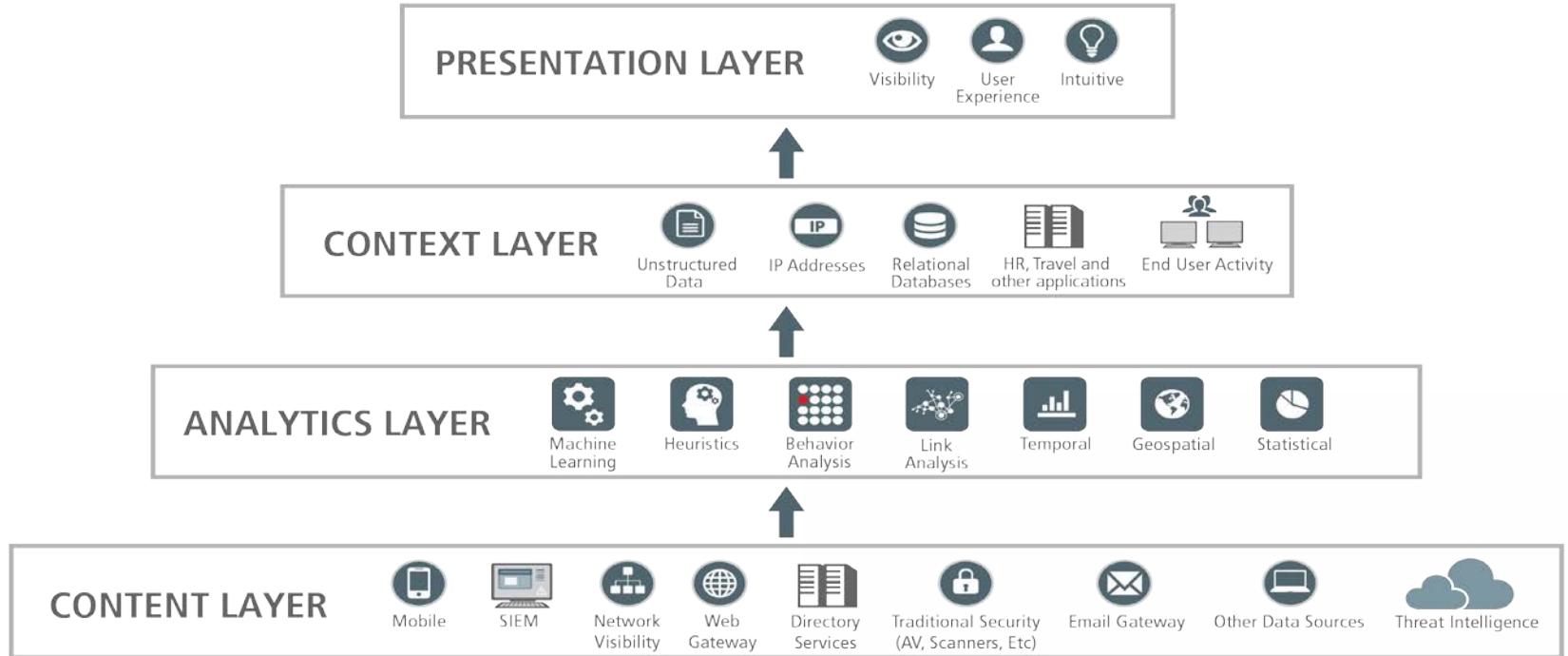
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Demo
Analytics & Context in action



Demo

A Layered Approach for the New Normal



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