

# **RSAC**Conference2015

San Francisco | April 20-24 | Moscone Center

SESSION ID: SPO1-W03

## Incident Response Agility: Leverage the Past and Present into the Future

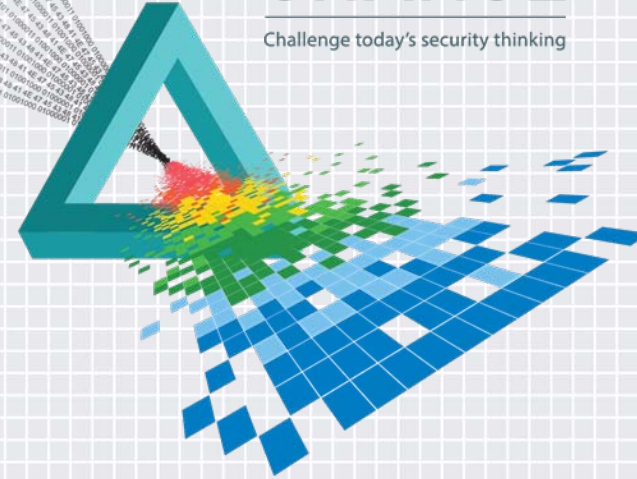
**Torry Campbell**

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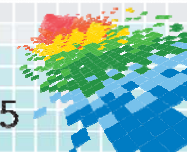
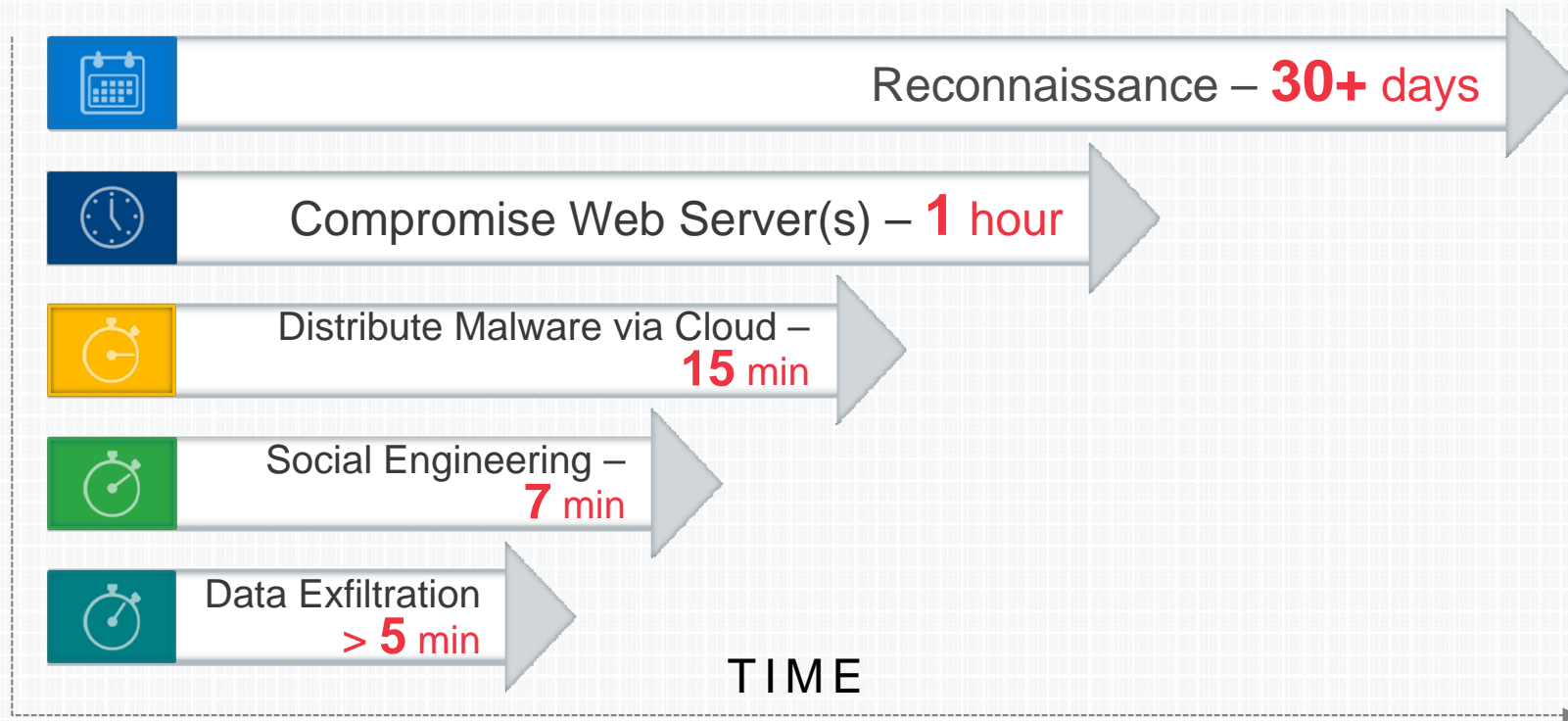
CTO, Endpoint and Management Technologies  
Intel Security

# CHANGE

Challenge today's security thinking

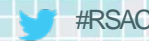


# The Reality we Face



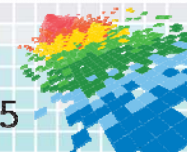
# Incident Response Survey

Released April 13, 2015



<http://mcaf.ee/r7ei8>

The image shows the cover of a report titled "Tackling Attack Detection and Incident Response". At the top, there is a black header with the ESG logo (three colored squares: orange with 'E', red with 'S', green with 'G') and the text "Enterprise Strategy Group | Getting to the bigger truth." Below the header, the title "Tackling Attack Detection and Incident Response" is written in a large, bold, dark grey font. A horizontal line separates the title from the author information. The author information is written in red: "Research and Analysis by Intel Security and ESG". Below this, in a smaller, dark grey font, it says "By Jon Oltsik, Senior Principal Analyst". Another horizontal line follows. The date "April 2015" is written in a small, dark grey font. At the bottom of the cover, there is a small paragraph of text: "This ESG paper was commissioned by Intel Security and is distributed under license from ESG." and a copyright notice: "© 2015 by The Enterprise Strategy Group, Inc. All Rights Reserved. by The Enterprise Strategy Group, Inc. All Rights Reserved."

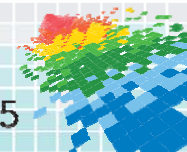


# Why Agility?

Average number of incidents investigated in 2014

Total (n= 700)	500 to 999 employees	1,000 to 4999 employees	More than 5,000 employees
<b>78</b>	31	41	150

Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>

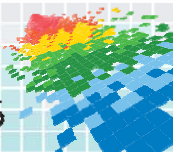


# High Proportion of Targeted Attacks

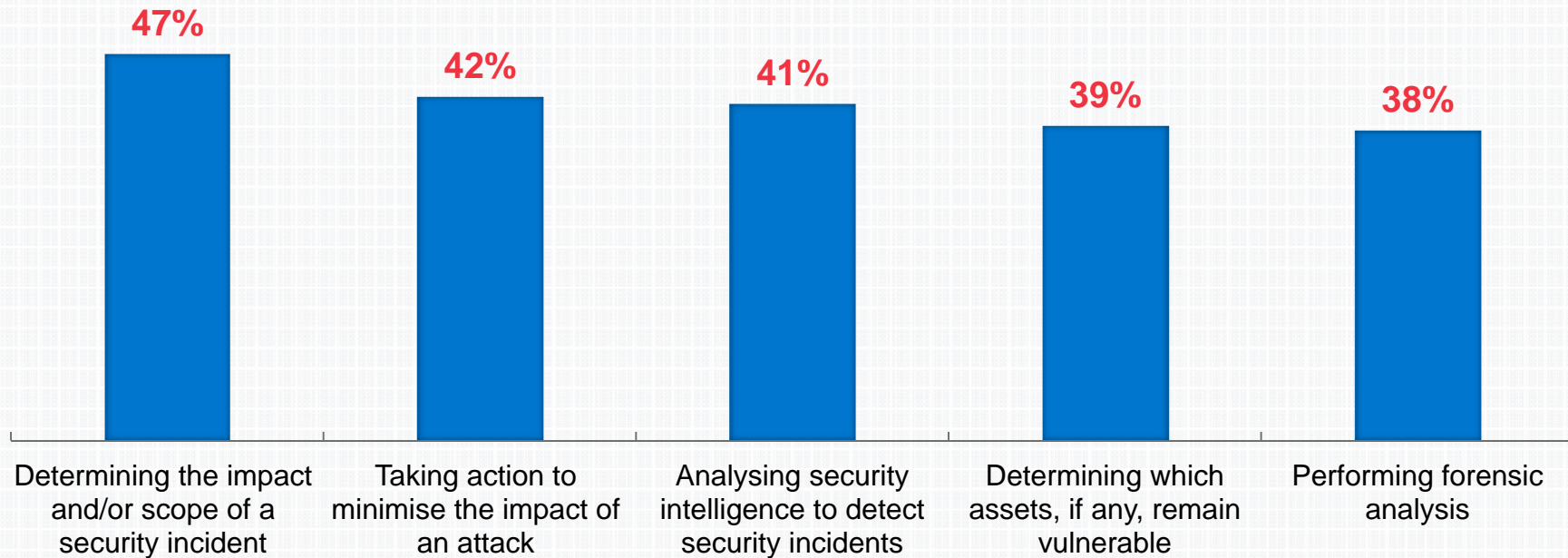
Average percentage of investigations in 2014 associated with targeted attacks

Total (n= 700)	500 to 999 employees	1,000 to 4999 employees	More than 5,000 employees
28%	24%	30%	28%

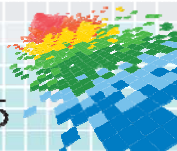
Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>



# Where Incident Responders Spend Their Time

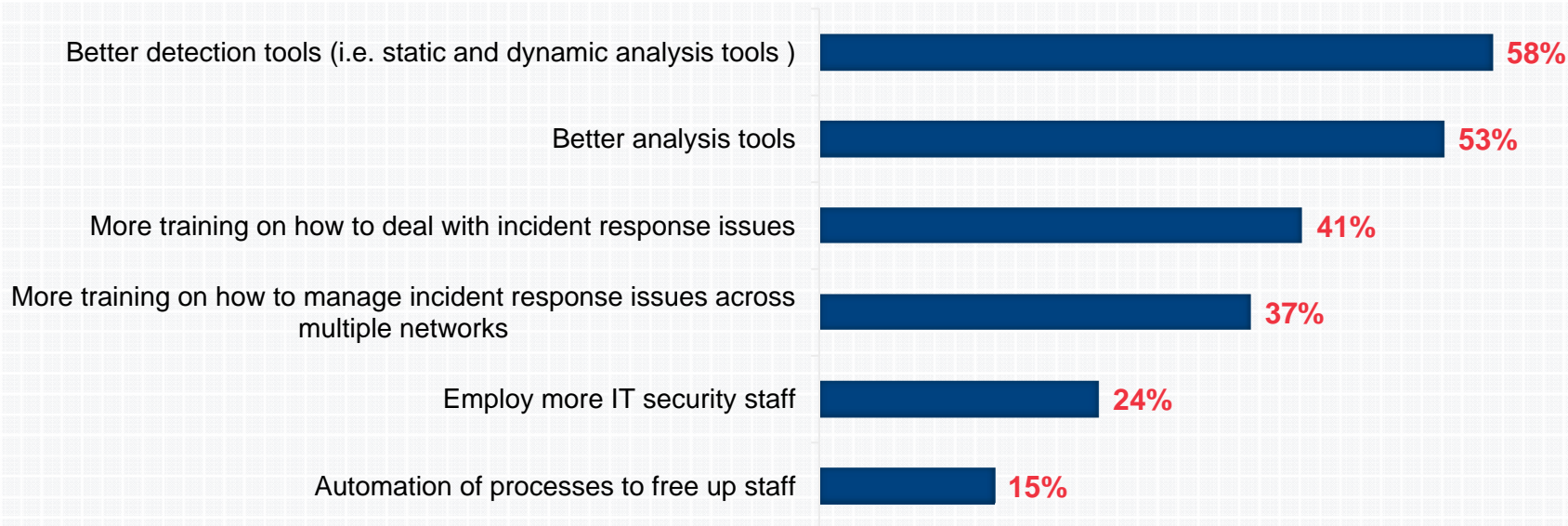


Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>

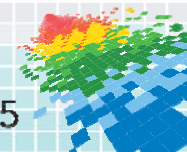


# Best Boost for Efficiency and Effectiveness

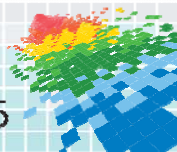
Detection, analytics, training



Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>



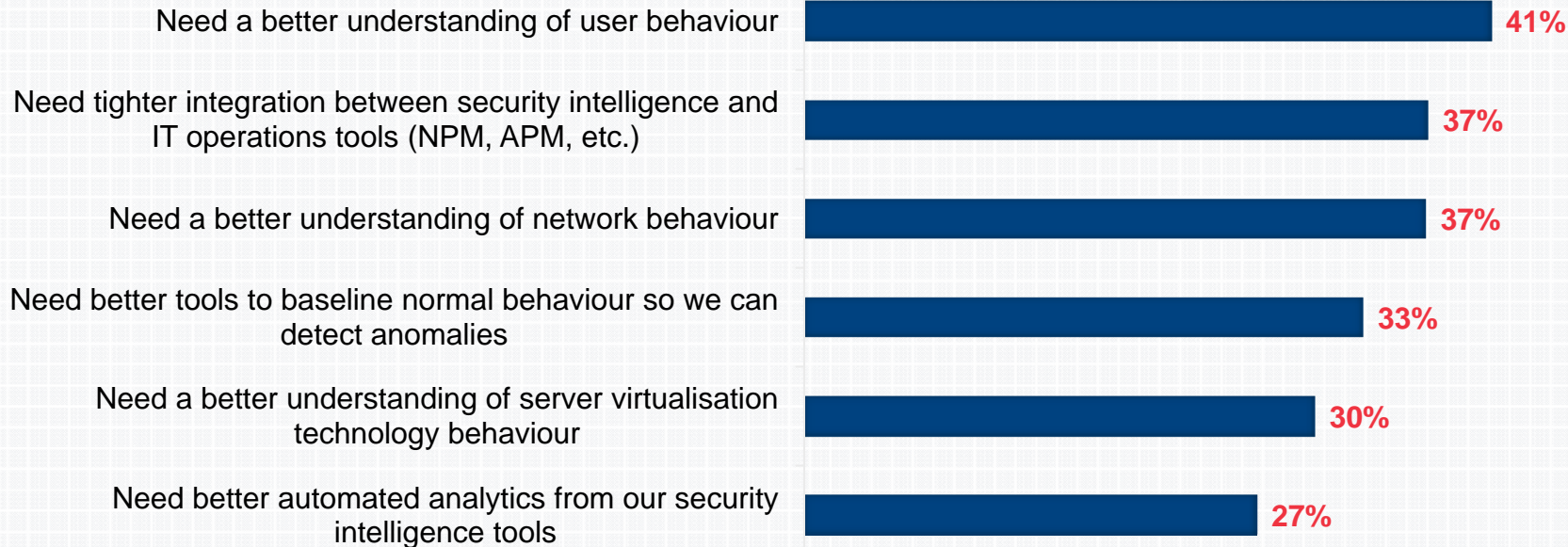
# Building the Story Requires Comprehension



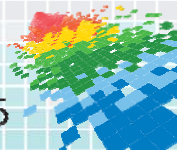


# Inhibitors to Real-time Awareness

Understanding behavior, operational integration, analytics



Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>



# A Series of Unintegrated Events

## Network & Gateway

NGFW

NIPS

Web Gateway

Email Gateway



## Sandbox



- IOC 1
- IOC 2
- IOC 3
- IOC 4

analyze payload

## SIEM

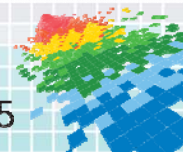


hunt historic events

Endpoints

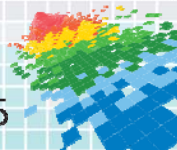
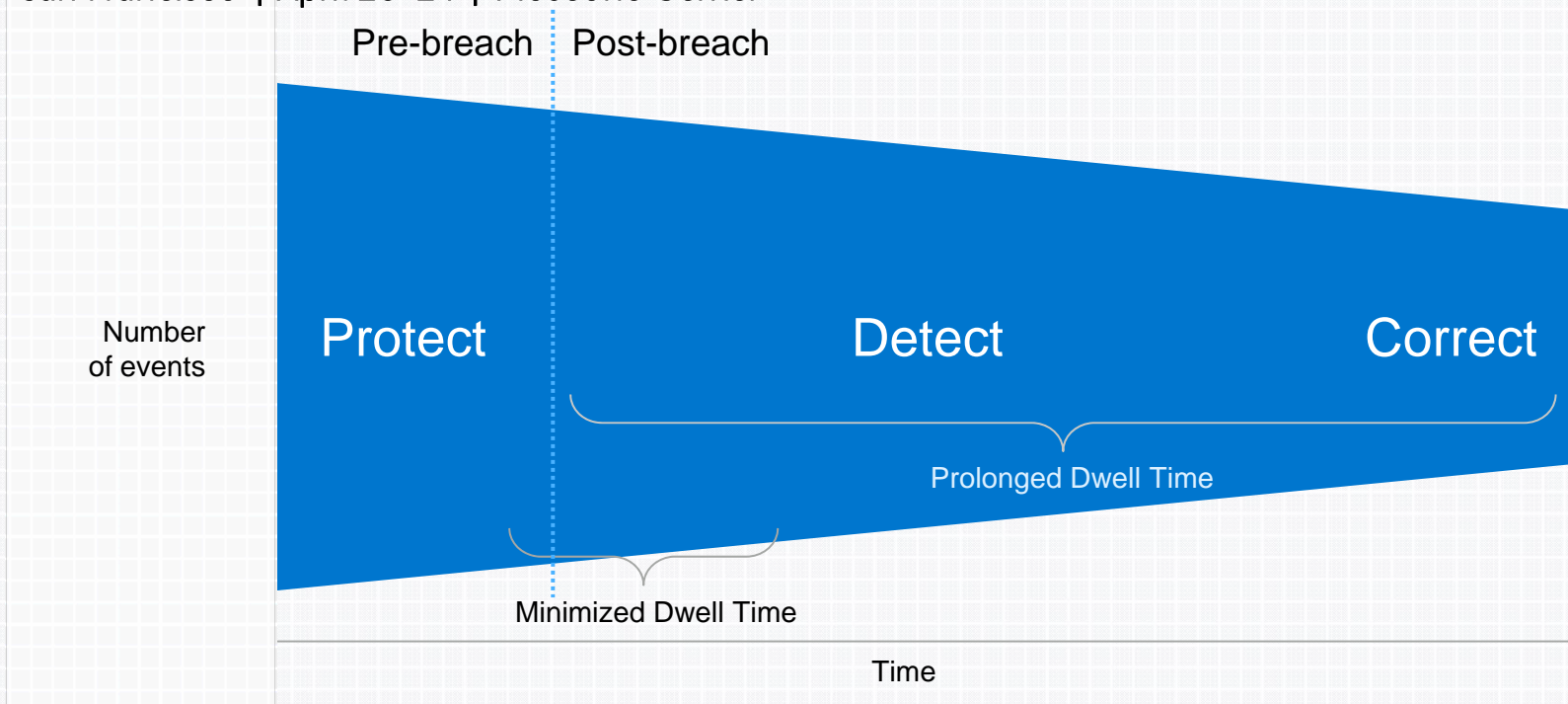


Isolate and remediate previously compromised systems



# Agile Incident Response

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SESSION ID: SPO1-W03

## Protecting the Future by Studying the Past and Present

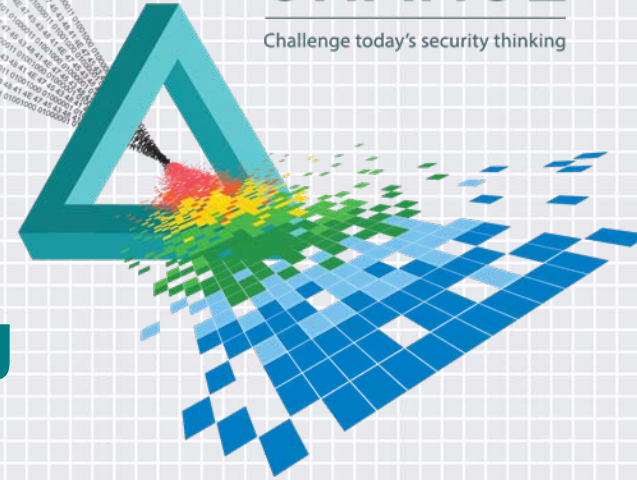
**Josh Thurston**

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Manager, WW Technical Operations

# CHANGE

Challenge today's security thinking



# RSA® Conference 2015

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“Omaha”



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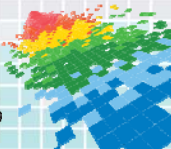


# Peyton Manning

## The Perfectionist

- ◆ Past
  - ◆ Study Film of his team
  - ◆ Study Film of his opponent
- ◆ Present
  - ◆ Study images of plays during game
  - ◆ Analyze formations at the line
  - ◆ Reflect on data

**“OMAHA”**



# Agenda

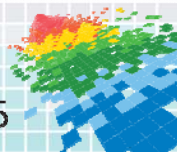
1. Pursuit of Perfection

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2. Time is Against You

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3. Data Collection

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4. Analysis

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5. Insight Through Integration

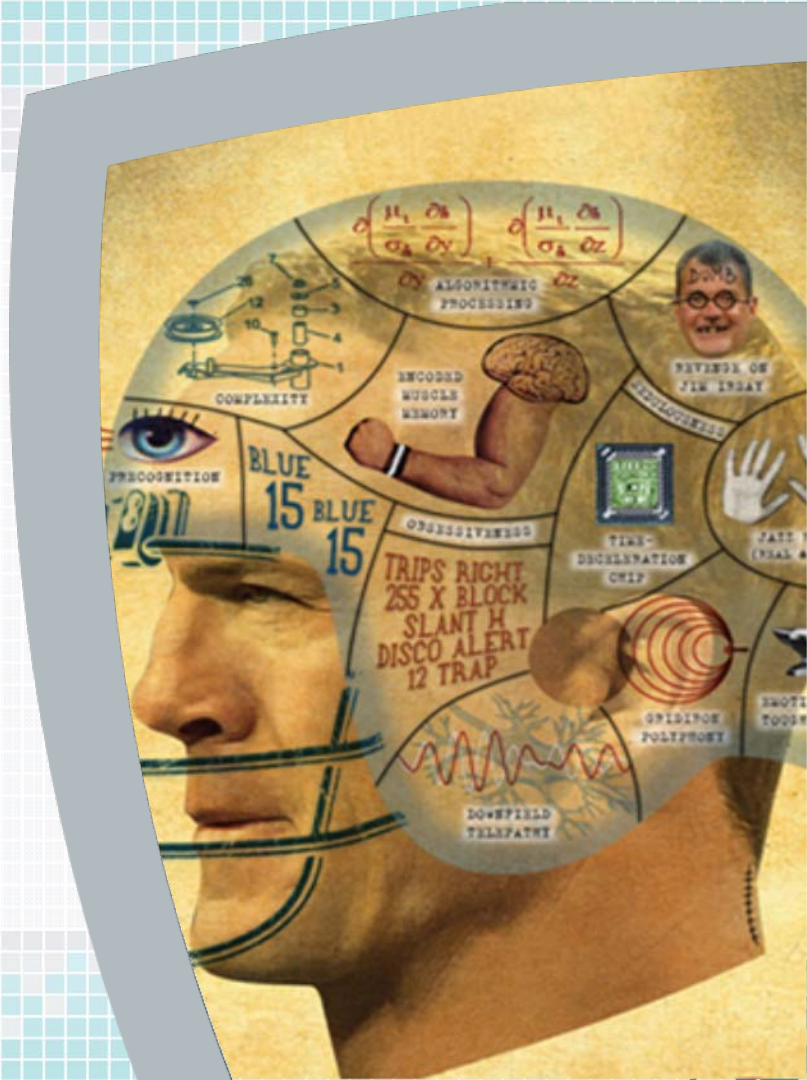


# Pursuit of Perfection

## The Setup

- ◆ Integrated Security Architecture
  - ◆ Ability detect and provide alerts to potential threats in as they occur
  - ◆ Adapt and improve security
  - ◆ Complete coverage:
    - ◆ Endpoint, Network, Identity, and Data
- ◆ Mature Incident Response
  - ◆ Ability to Collect Meaningful Data
  - ◆ Ability to Analyze the Data Quickly
  - ◆ Ability to Act Very Fast – Minimize Impact
  - ◆ Ability to Protect the Future

<http://www.gq.com/blogs/the-feed/2013/12/peyton-manning-breaks-touchdown-record-and-other-news-a-man-needs-to-know-today.html>



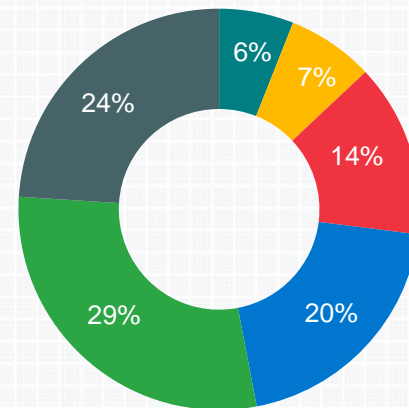


# Time is Against You

Attackers Have the Upper Hand

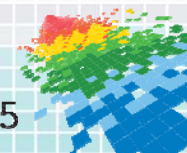
- ◆ Attacks take a lot of time to plan.
- ◆ You don't detect pre attack activities
- ◆ Attacks are executed quickly
- ◆ 53% of the Time it Takes More Than 1 Day to Detect a Breach

## Time To Detect



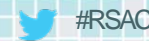
■ Difficult ■ Months ■ Weeks ■ Days ■ Hours ■ Minutes

When Minutes Count: <http://www.mcafee.com/us/resources/reports/rp-when-minutes-count.pdf>



# You Can Be Effective

## Toolkit



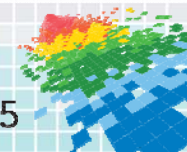
### Things to Know:

- ◆ Use the Tools You Have and Trust
- ◆ You Have The Right People
  - ◆ Only **17%** feel they need better analysis/forensics skills.
- ◆ You Have the Data, just not integration
  - ◆ Only **26%** say they have a hard time gathering the right data for accurate situational awareness
  - ◆ A Whopping **47%** say they spend most of their time determining impact. i.e. putting the pieces together

### Things To Do:

- ◆ Integrate
  - ◆ **37%** feel they need tighter integration
- ◆ Understanding and Visibility
  - ◆ **41%** Need to understand user behavior
  - ◆ **37%** Need to understand network behavior
  - ◆ **27%** Need to understand application behavior
  - ◆ **21%** Need to understand host behavior

Intel Security Data via Vanson Bourne, March 2015. <http://www.mcafee.com/us/resources/reports/rp-esg-tackling-attack-detection-incident-response.pdf>



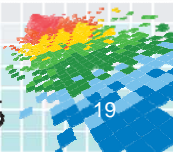
# Data Collection

Past and Present

- ◆ No Blind Spots
  - ◆ Endpoint
  - ◆ Network
  - ◆ Identity
  - ◆ Data



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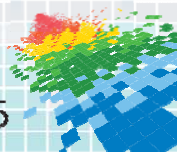
# Analysis

How Fast are You

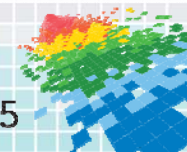
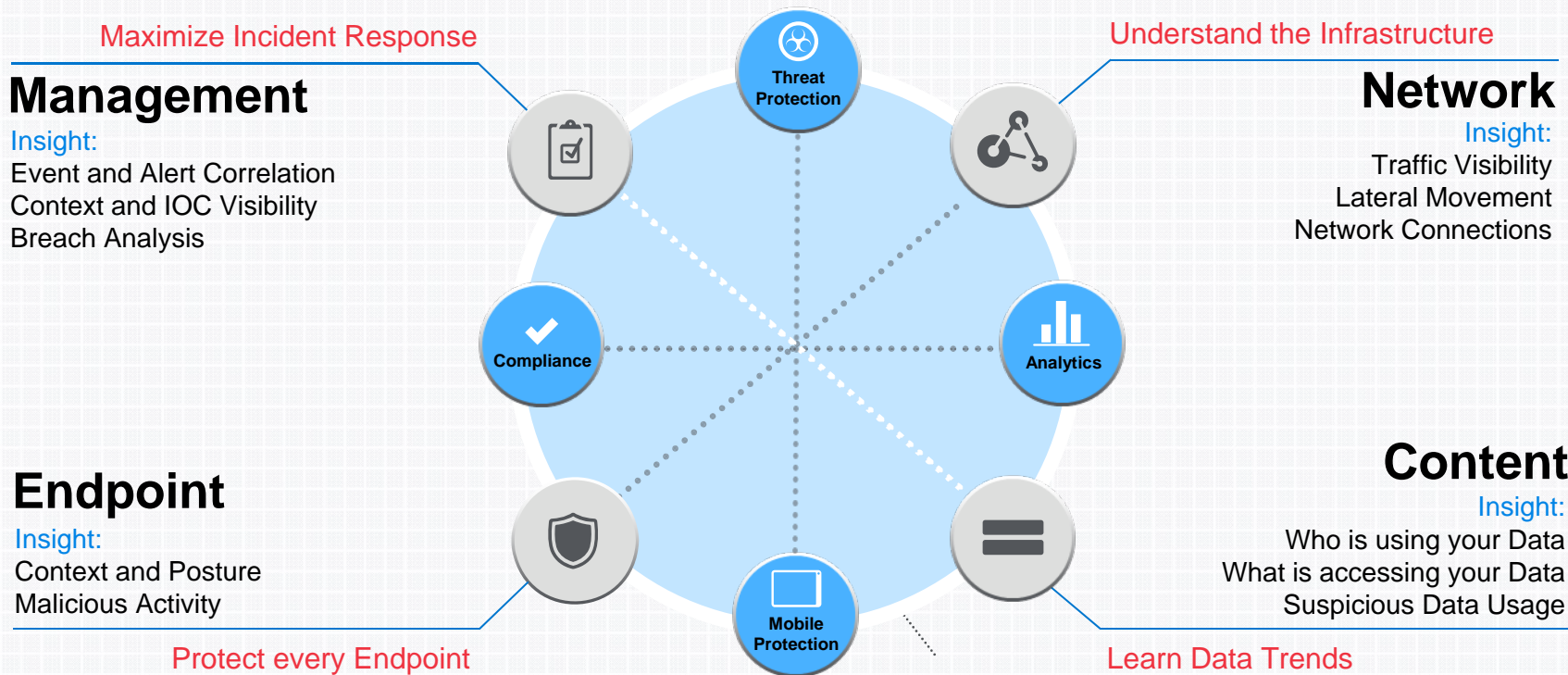
- ◆ Analyze
  - ◆ What is Normal
  - ◆ What is Abnormal
  - ◆ Filter out the white noise
  - ◆ Correlate Data between sources



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# Insight Through Integration



# Omaha in Action

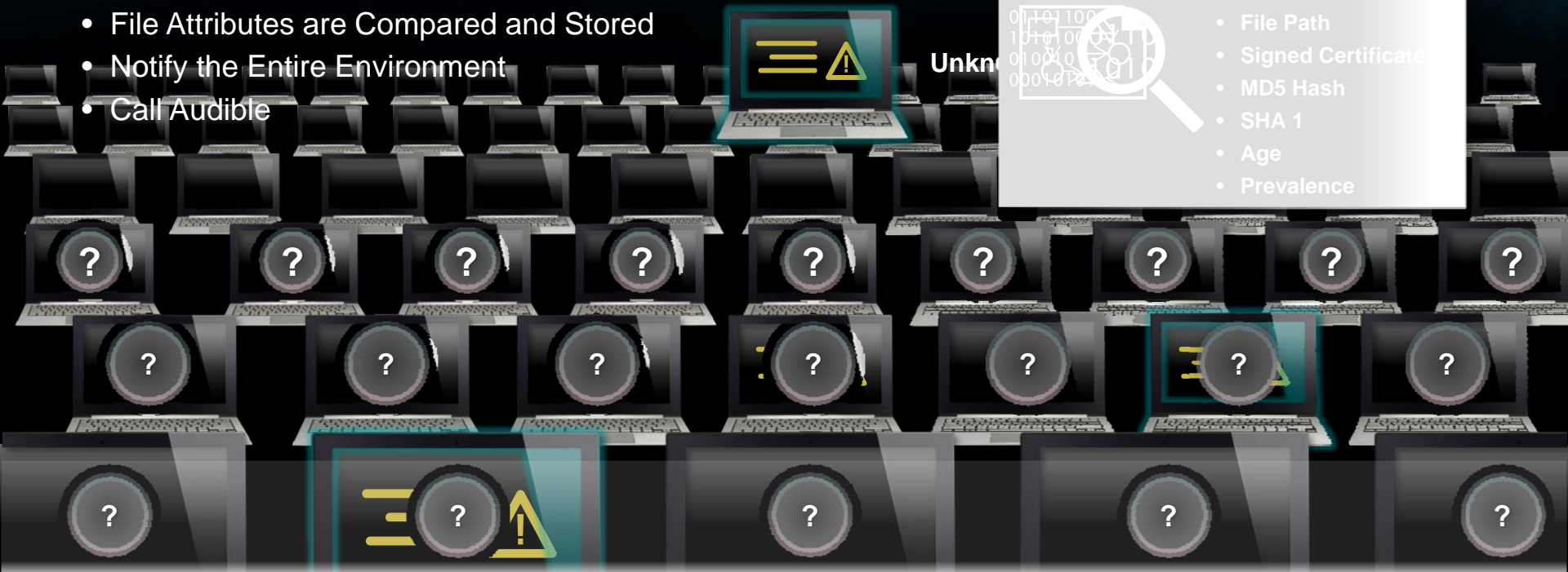
## Live Analysis and Data Collection

- An Executable Launches
- File Attributes are Compared and Stored
- Notify the Entire Environment
- Call Audible

## File Attributes

- File Name
- File Path
- Signed Certificate
- MD5 Hash
- SHA 1
- Age
- Prevalence

Unknown

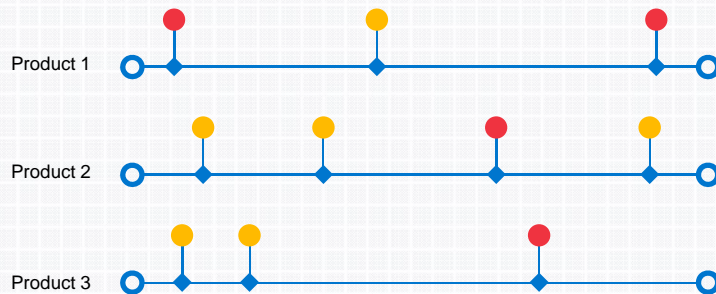


# Clarity to Drive Better, Faster Decisions

Current state vs. integrated and agile

## CURRENT STATE

Limited scope. Point in time context.

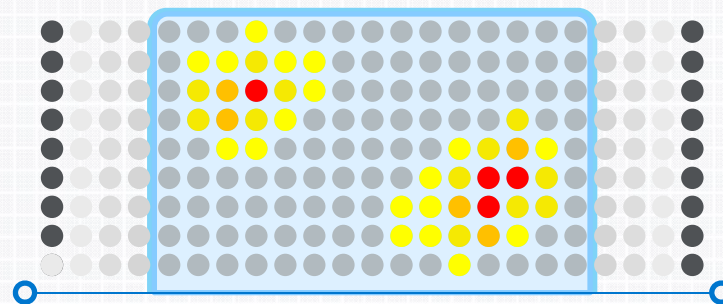


### Result

Limited, reactive visibility and threat protection

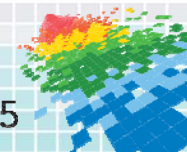
## AGILE APPROACH

Continuous monitoring and contextual analytics



### Result

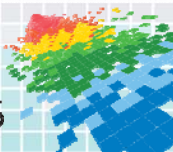
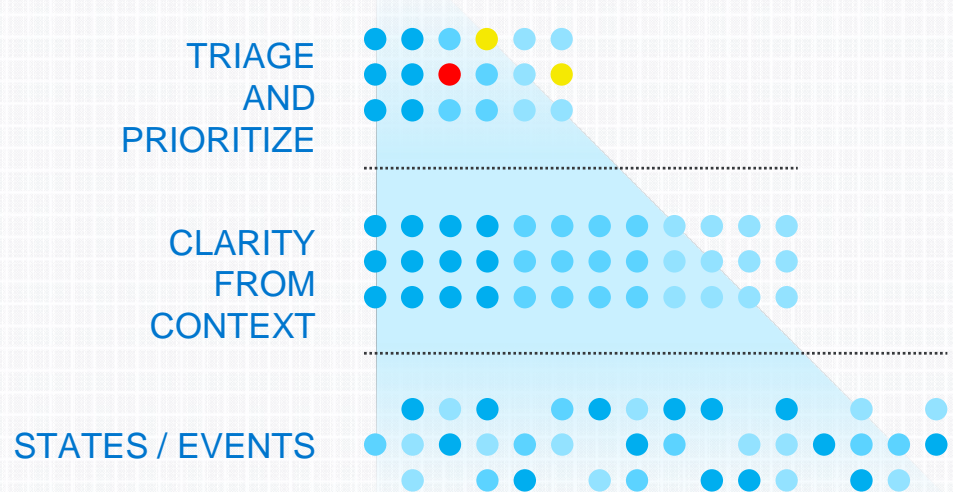
Faster, more proactive awareness of threats and anomalous events



# Confidence to Act

Boost confidence with risk scoring, automation, watch lists and alerting

- ◆ Gain confidence to act:
  - ◆ Distillation and prioritization
  - ◆ Risk scoring and customizable tuning
  - ◆ Increased automation
  - ◆ Focus on what matters most



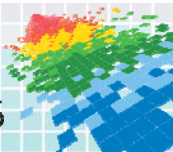


# IR and Forensics

Enable Your Team



1. Integrated Architecture
2. Agile Framework
3. Shared Intelligence
4. Effective SIEM Analytics Implementation
5. Clarity to Drive Better, Faster Decisions
6. Confidence to Act



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## Closing

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## Call Omaha

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