



# Securing the Data Center

- Intelligent Security Solutions

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# Data Center is a Challenging Environment



**Time-  
consuming  
provisioning**



**Complex  
data flows**



**Unpredictable  
data volume**

# Sacrifice Security to Gain Performance



**Incomplete security coverage**



**Inconsistent levels of security**



**Compromised configuration**



**Proliferating user access**

# Malware Threats To Data Centers Are Growing in...

## Sophistication

- Organizations often have 40 to 60+ disparate security solutions
- But they don't – and often can't – work together



## Stealth

- 17,000 alerts received on average per week
- 19% prove reliable
- Security teams have time to investigate just 4% of warnings<sup>1</sup>



## Speed

- The longer threats stay undetected, the greater for damage
- But current industry average detection time: 200 days
- Average cost per data breach: \$3.8 million<sup>2</sup>



# Malware Preys on Dis-Integrated Security Infrastructure



Too Much  
Information



Too Much  
Manual Effort



Too Little Time

# Advanced Malware Requires Advanced Threat Detection and Response



Malware defense should be:



Automated



Advanced



Scalable



Accelerated

# Data Centers Require Specialized Security

Standard edge security		Data center security
Sees symmetric traffic only		Requires asymmetric traffic management
Scales statically for predictable data volume, limited by edge data connection		Must scale dynamically to secure high volume data bursts
Monitors ingress and egress traffic		Needs to secure intra-data-center traffic
Deployed typically as a physical appliance		Requires both a physical and virtual solution
Deploys in days or weeks		Must deploy in hours or minutes

# What If You Could...?



• Improve Threat Visibility and Detection Across the Network

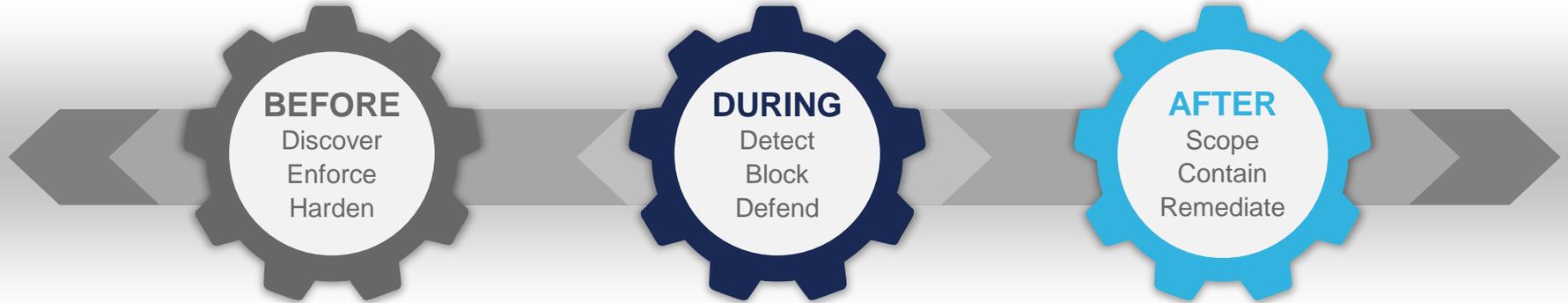


• Speed Time to Containment



• Lower Operational Overhead and Costs

# ....And Automate Protection Across The Full Attack Continuum



Continuous Analysis and Retrospective Security

# Advanced Detection and Remediation Capabilities

## Monitor



- Understand your network and data center normal
- Gain real-time situational awareness of all traffic

## Detect



- Leverage Network Behavior Anomaly detection & analytics
- Detect behaviors linked to APTs, insider threats, DDoS, and malware

## Analyze



- Collect & Analyze holistic network audit trails
- Achieve faster root cause analysis to conduct thorough forensic investigations

## Respond



- Accelerate network troubleshooting & threat mitigation
- Respond quickly to threats by taking action to quarantine through Cisco ISE

# Protect Automatically with Rapid Threat Containment

Cisco FirePOWER Management Center (FMC) and Cisco Identity Service Engine (ISE)

## Benefits



### Detect Threats Early

FMC scans activity and publishes events to ISE



### Automate Endpoint Containment

ISE alerts the network of suspicious activity according to policy



### Integrate Best-of-Breed Security

Growing ecosystem of threat defense partners integrate with ISE

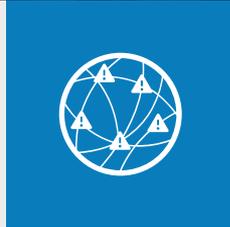


# Rapid Threat Containment in Action

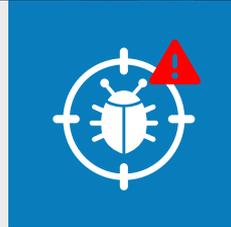
## Automatically Defend Against Threats with FMC and ISE



Corporate user downloads file, not knowing it's actually malicious



Cisco security sensors scan the user activity and downloaded file. FMC aggregates and correlates sensor data



FMC detects flagrantly suspicious file and alerts ISE. ISE then changes the user's/device's access policy to **suspicious**



Based on the new policy, network enforcers automatically restrict access



Device is quarantined for remediation or mitigation—access is denied per security policy

# Taking A Deeper Look....

## Context and Threat Correlation



Impact Assessment

## Multivector Correlation



Early Warning for Advanced Threats

## Dynamic Security Control



Adapt Policy to Risks

## Retrospective Security



Reduce Time Between Detection and Cure

# Cisco Rapid Threat Containment Solution

## Advanced Threat Sensors

- Cisco ASA with Firepower Services
- FirePOWER NGIPS Appliances
- Cisco AMP for Networks
- Firepower on Cisco ISR
- Stealthwatch Network Analysis



## Threat Visibility

- Cisco FirePOWER Management Center
- Automated Contextual Analysis and Threat Qualification
- Continuous Threat Intelligence Updates to Threat Sensors

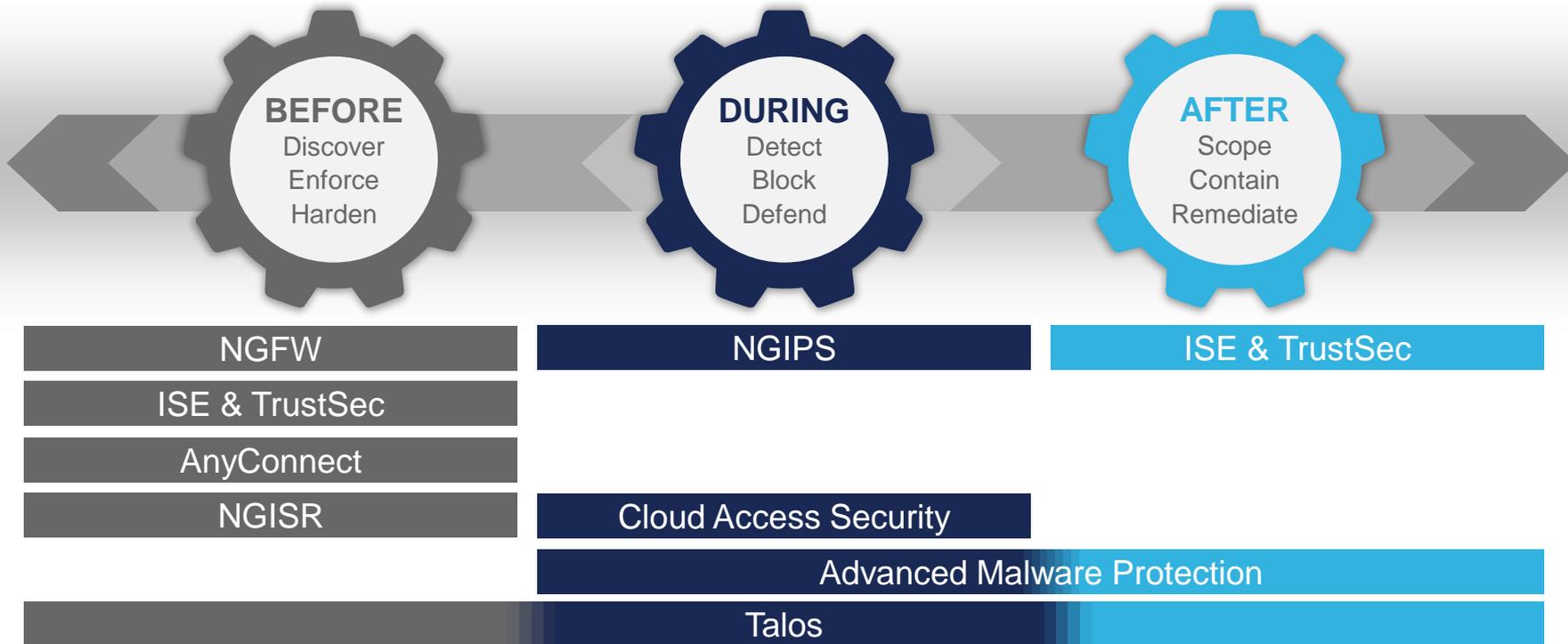


## Automated Enforcement

- Cisco POWER and Cisco ISE Automate Containment
- Policy Enforcement from Cisco TrustSec, Downloadable ACL, or VLAN



# Cisco RTC protects across the full attack continuum



# Differentiated Threat Defense



Advanced, Automated  
Malware Detection



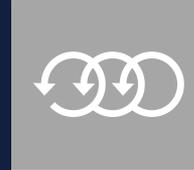
Pervasive  
Network Enforcement



Contextual Visibility  
to Understand and  
Contain Threats Faster



Your Cisco Network as  
Security Sensor and Enforcer



Continually Updated  
Threat Intelligence

# Rapid Threat Containment Protects The Data Centre With....



Improved Threat Visibility  
and Detection Effectiveness



Faster Time-to-Containment



Lower Costs



# Learn More



- Cisco Rapid Threat Containment Product Page: <http://www.cisco.com/go/rtc>
- Cisco Rapid Threat Containment At-A-Glance: [http://www.cisco.com/c/dam/en/us/products/collateral/security/identity-services-engine/at\\_a\\_glance\\_c45-735770.pdf](http://www.cisco.com/c/dam/en/us/products/collateral/security/identity-services-engine/at_a_glance_c45-735770.pdf)
- Datasheet: <http://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/rapid-threat-containment/datasheet-c78-736242.html>
- Solution Overview: <http://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/rapid-threat-containment/solution-overview-c22-736229.html>

# Thank You For Your Time

