



## Advanced Cyber Illness Treatment

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# Agenda

- 1 Advanced Threat Protection **Prevent advanced persistent threats**
- 2 Advanced Threat Protection **Identify suspicious files**
- 3 Advanced Threat Protection **Search for Indicators of Compromise**
- 4 Advanced Threat Protection **Block, isolate and remove the advanced persistent threats**
- 5 Advanced Threat Protection **Minimize environmental changes**
- 6 Symantec Product Integration and Support
- 7 Additional Resources and Summary



**Let's get started!**



## What are Advanced Threats ?

### Targeted

Targets specific organizations and/or nations for business or political motives

### Stealthy

Uses previously unknown zero-day attacks, root kits, and evasive technologies

### Persistent

Sophisticated command and control systems that continuously monitor and extract data from the specific target

# How They Work: Advanced Threats

## 1. INCURSION

Attackers break into network by using social engineering to deliver targeted malware to vulnerable systems and people.

## 2. DISCOVERY

Once in, the attackers stay "low and slow" to avoid detection. They then map the organization's defenses from the inside and create a battle plan and deploy multiple parallel kill chains to ensure success.

## 3. CAPTURE

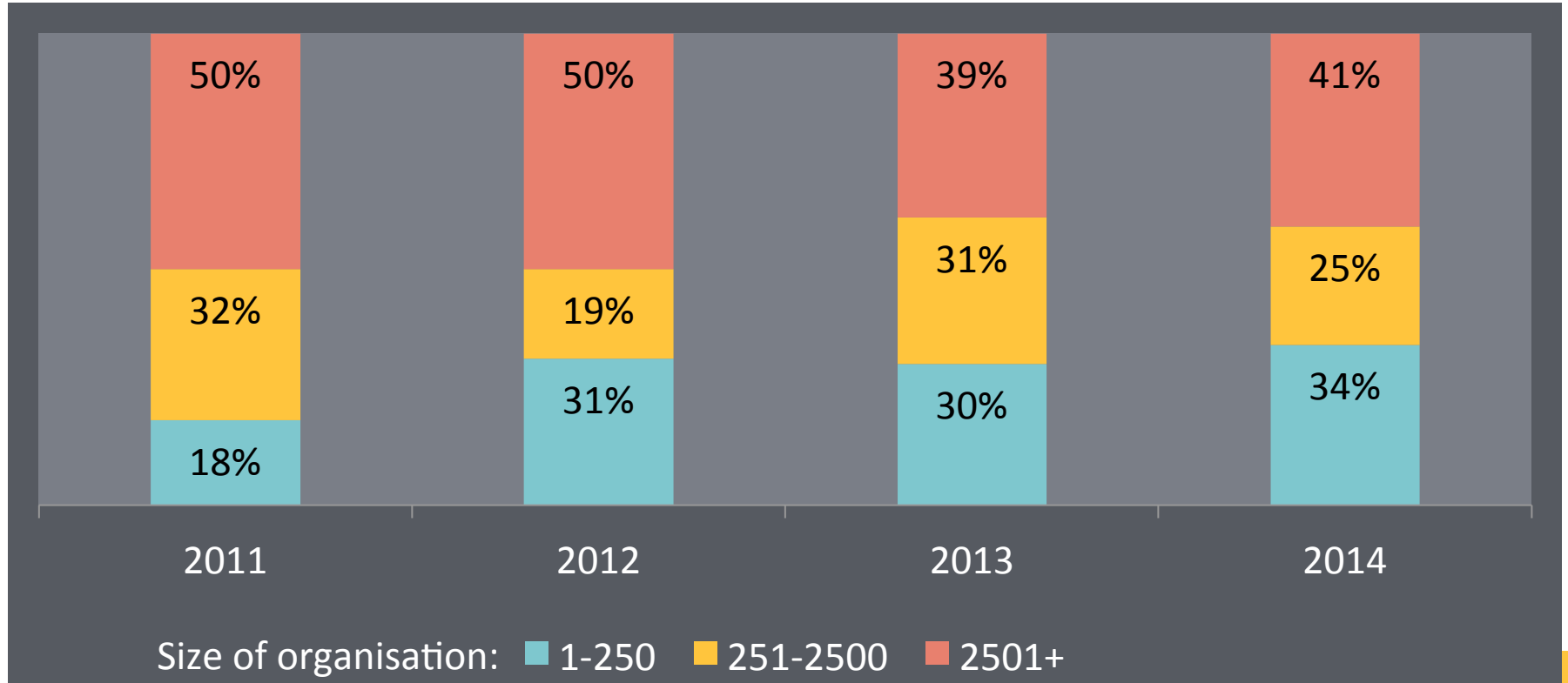
Attackers access unprotected systems and capture information over an extended period. They may also install malware to secretly acquire data or disrupt operations.

## 4. EXFILTRATION

Captured information is sent back to attack team's home base for analysis and further exploitation fraud—or worse.



## What the likelihood is of being a target



# What the results are of being a target

## Technically



**66%**

Breaches  
undetected for 30  
days  
or more



**243**

Is the average  
number of days  
before detection



**4**

Months is the  
average time to  
remedy once  
detection has  
occurred

# What the results are of being a target (continued)

## Commercially



### Resource

Opex  
Capex  
Legal Fees  
Time  
Money



### Theft

Intellectual Property  
Money  
Customer Data  
Employee Data

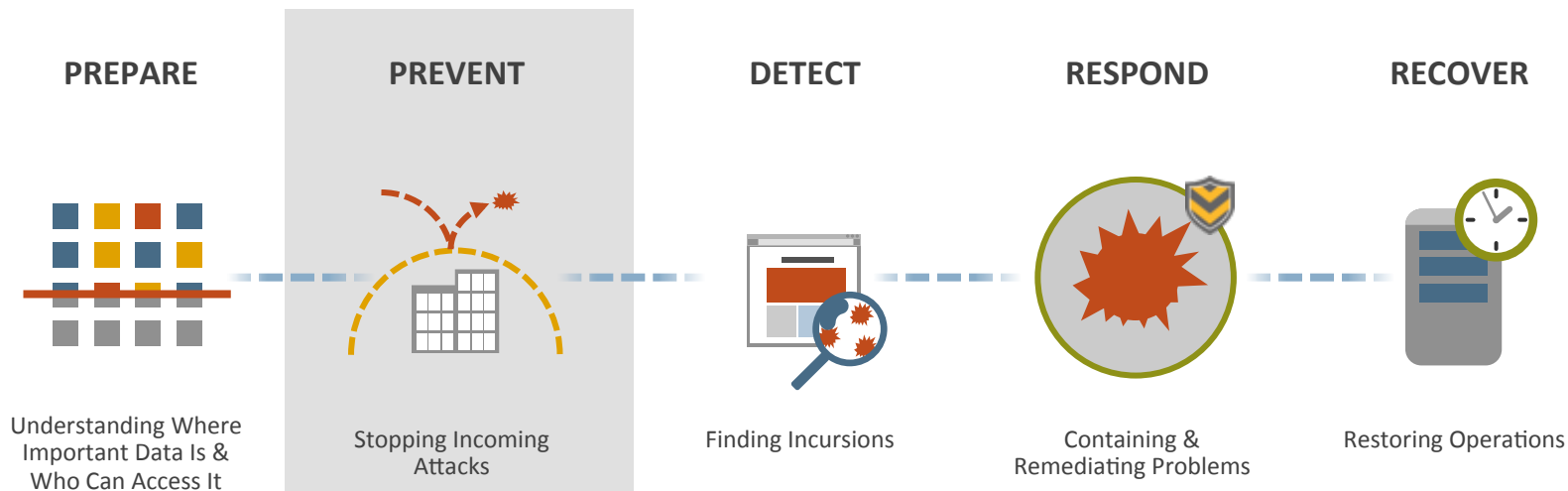


### Reputation

Brand Reputation  
can be affected if a  
breach is reported in  
the press



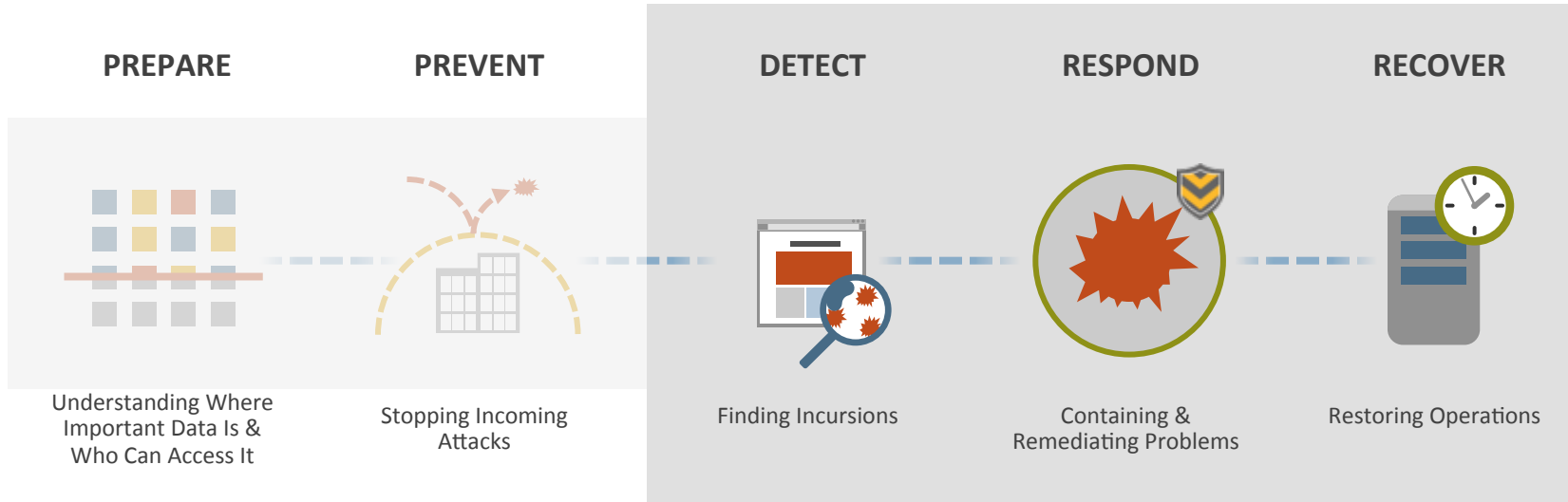
# Even with the best prevention technologies, can you stop advanced persistent threats?



**While prevention is still very important....**

**...you need to prepare to be breached.**

# If you are breached, how fast can you detect, respond and recover?





ATP Solution:

# Identify suspicious files

# Symantec Advanced Threat Protection: Modules



**ATP: Network**

- Network visibility into all devices & all protocols
- Automated sandboxing, web exploits, command & control
- Deployed off a TAP or inline as virtual or physical appliance



**ATP: Endpoint**

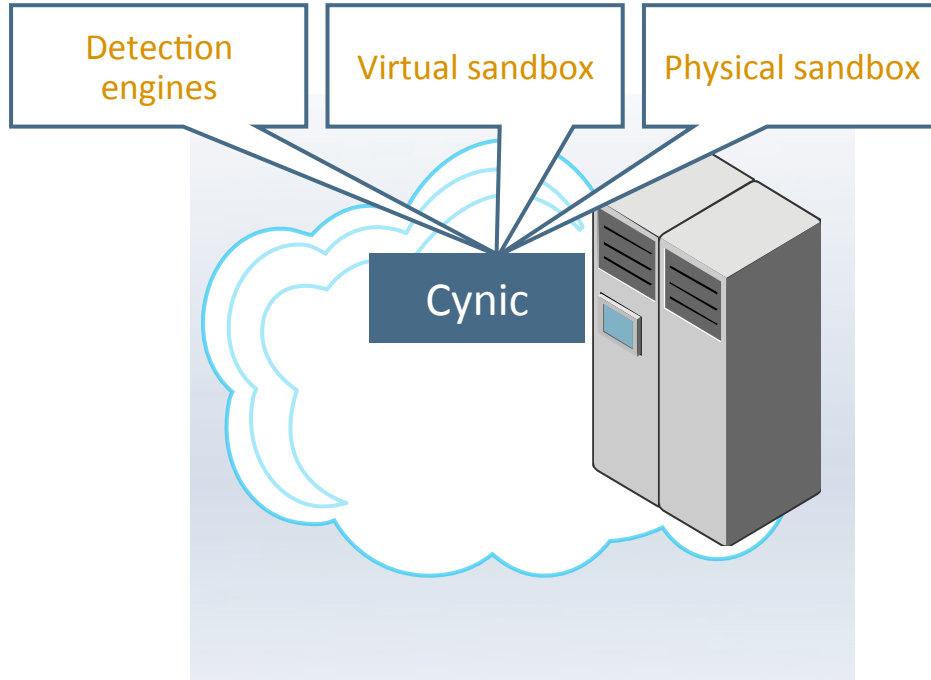
- Endpoint visibility (the foothold in most targeted attacks)
- Endpoint context, suspicious events, & remediation
- Requires SEP – no new agent – and deployed as a virtual or physical appliance



**ATP: Email**

- Email visibility (still the number one incursion vector)
- Email trends, targeted attack identification, sandboxing
- Cloud-based easy add on to Email Security.cloud

# Symantec Advanced Threat Protection: Cynic



**ATP: NETWORK**



**ATP: ENDPOINT**



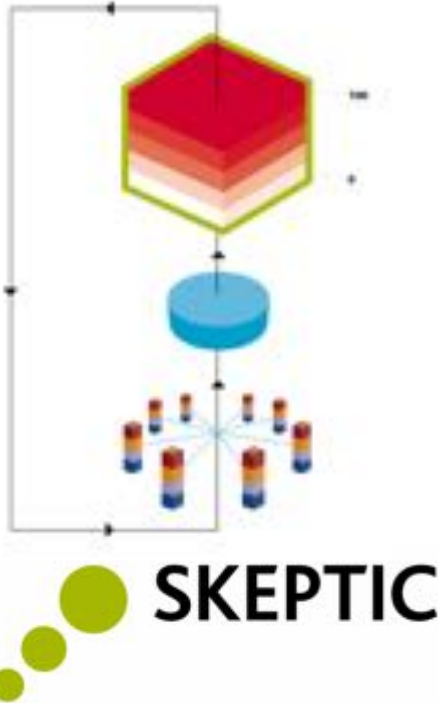
**ATP: EMAIL**

## Cynic - File Types

- Windows binaries: EXE, DLL, SYS (drivers), OCX (ActiveX controls), SCR (Screen Savers)
- Office docs: Word, Excel, PowerPoint
- Java applets
- Compressed files (rar, zip, 7z)
- Adobe Acrobat



## Skeptic: pseudo equation for heuristic analysis



- + *Questionable source*
  - + *Suspect Attachment*
  - + *Suspicious code in attachment*  
(+ *Evidence of obfuscation*)  
(+ *Unexpected encryption*)
- 

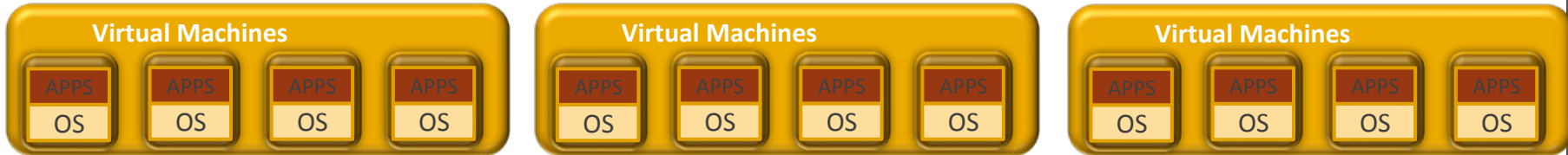
*Heuristically detected malware*





## Virtual Execution

- VM execution with mimicked end user behavior
- Range of OS and apps
- VM execution range of OS and applications
- VM communication analysis



## Physical Execution

- Physical hardware
- Bare metal execution
  - No Virtualization



ATP Solution:

# Search for Indicators of Compromise

# Console Home



45  
49

Actively Infected Endpoints	Total Endpoints
0	46



Email



## New and Unknown Threats



4  
CRITICAL DETECTIONS

45  
MEDIUM DETECTIONS

49  
TOTAL PLAYS

## Suspicious Resources

Actively Infected Endpoints	Total Endpoints
0	46

Overview Information

### Endpoint Traffic: Malicious: November 19

Conditions: Endpoint Alert Events

3 of 3 Results

Host Name	IP Address	File Name	User Name	Folder	Actual Action	Detection Date
VM-967-c2	192.168.2.150	cs_setup.exe	admin	C:\Users\admin\AppData\Local\Temp\...	Quarantined	2015-11-20 11:17:58 UTC
VM-967-c2	192.168.2.150	cs_setup.exe	admin	C:\Users\admin\AppData\Local\Temp\...	Quarantined	2015-11-20 11:17:58 UTC
VM-967SP1-2	192.168.2.155	cs_setup.exe	admin	C:\Users\admin\AppData\Local\Temp\...	Quarantined	2015-11-20 09:34:50 UTC



Clickable links for further investigation



# ca\_setup.exe



**Bad**

CONFIDENTIAL

**Not Available**

OSINT REPORT

**No**

TARGETED ATTACK

**SecurityRisk.BL**

AN SIGNATURE NAME

f98bc99cb8160d4e7f19fb76410ca4fab37c3d3dbfef6123b54c8c...

SHA256

ea2ef30c99ecec1eda9aa128631ff31

MD5

**Not Signed**

CERTIFICATE

**Unknown**

FILE TYPE

## File Overview

**6**

RELATED INCIDENTS

**0**

RELATED INCIDENTS

**0**

EMAIL DISTRIBUTIONS

**0**

CYBER INCIDENTS FOUND

**1**

EXTERNAL INCIDENTS ASSOCIATED

## Global Reputation

**Years ago**

PROBABILITY SEEN

**Tens of thousands of users**

PROBABILITY

## Local Reputation

**Weeks ago**

PROBABILITY SEEN

**2 internal endpoints**

PROBABILITY

Add to Blacklist



Add to Whitelist



Submit to Cynic



Submit to VirusTotal



Copy to file store



Delete



ca\_setup.exe



Bad

REPUTATION

Not Available

OSINT RESULTS

No

TARGETED ATTACK

SecurityRisk.BL

AN UNKNOWN NAME

f98bc99cb8160d4e7f19fb76410ca4fab37c3d3dbfef6123b54c8c...

ea2ef30c99ecec1eda9aa128631ff31

Not Signed

CERTIFICATE

Unknown

FILE TYPE

File Overview

6

RELATED INCIDENTS

0

RELATED INCIDENTS

0

EMAIL DISTRIBUTIONS

0

CYBER INCIDENTS FOUND

1

EXTERNAL INCIDENTS ASSOCIATED

Global Reputation

Years ago

PROBABILITY

Tens of thousands of users

PROBABILITY

Local Reputation

Weeks ago

PROBABILITY

2 internal endpoints

PROBABILITY

Further actions



Add to Blacklist



Add to Whitelist



Submit to Cynic



Submit to VirusTotal



Copy to file store



Delete





# Entity Point Pages

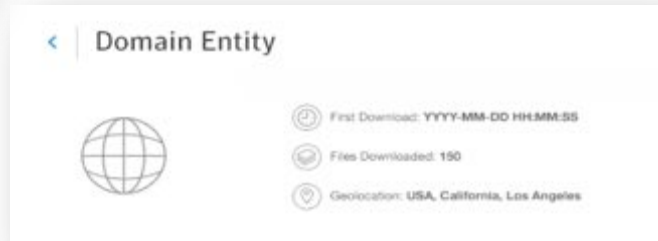


## File Entity page

Related Incidents  
Related Events  
Seen on Endpoints  
Files downloaded Origins  
Files named associated with Hash  
Cynic Results

## Domain Entity Page

Related Incidents  
Files downloaded  
Endpoints that communicated  
IP's Associated with Domain



## Endpoint Entity Page

Related Incidents  
Related Events  
Malicious Files  
Malicious Connections



Incidents Over Time

# Incident Manager



Show Filters 3 of 5 Incidents

ID	Description	Last updated	Priority	Status
10204	Malware Link detected	2015-11-02 14:28:52	Medium	Open
10205	Multiple attacks have been detected targeting 192.168.192.101	2015-11-02 14:28:59	Low	Open



### Incidents Over Time



Show Filters ▼

8 of 5 Incidents

ID	Description	Last updated	Priority	Status
10004	Internet Link detected	2015-11-22 14:36:32	Medium	Quarant
10003	Multiple attacks have been detected targeting 192.168.192.101	2015-11-22 14:35:39	Low	Quarant

# Incident Tracking

ID	Description	Last updated	Priority	Status
100004	InfoStealer_Limit detected.	2015-11-22 14:20:32	Medium	Opened
100003	Multiple attacks have been detected targeting 192.168.168.151.	2015-11-22 14:20:38	Low	Opened
100002	Multiple attacks have been detected from imbed.com.	2015-11-22 14:20:38	Low	Opened
100001	Multiple attacks have been detected targeting 81.181.170.111.	2015-11-20 11:01:18	Low	Opened
100000	Multiple attacks have been detected from 103.224.119.106.	2015-11-20 11:01:18	Low	Opened

# Searches



Search

Search



Database Search 1

Search Overview

0

0

0

## Search Results

0 of 0 Results

Type	Result
No data available	

# Types of Searches

- Inline (Datastore)
  - Searches local data store for artifacts
  - Seconds to return results
  - Artifacts are generated from endpoint and network sensor events
  - Examples (file, hash, domain name, hostname, username, IP)
  - PE File types (exe,dll,com,scr,msi,drv,sys,ocx,cpl)
  
- Endpoint Interrogation
  - Searches endpoint for artifacts
  - Results can be delayed based on factors
  - Examples (file, hash, registry)
  - All file types (PE, Non PE)



# Searches

## Files using

- File name
- File Hash (SHA256, MD5)

## Endpoints using

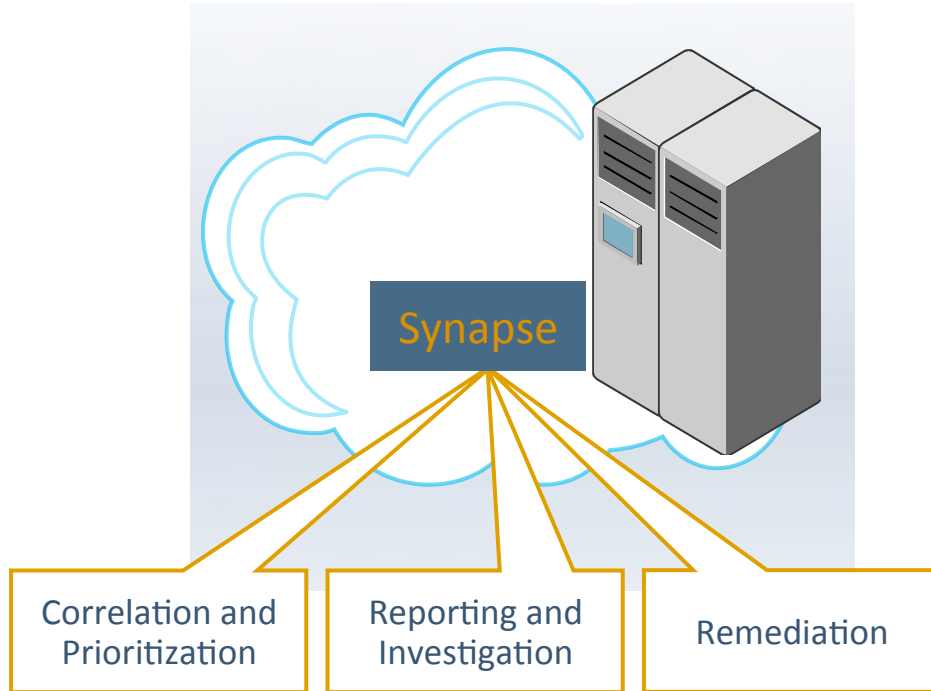
- Host name
- IP Address (v4)
- Logon user

## External domains using

- Domain name
  - Domain URL
  - Domain IP address
- We check if the provided value is present anywhere in the above fields i.e. file name, MD5, sha2, hostname etc. i.e. contains match.



# Symantec Advanced Threat Protection: Synapse



**ATP: EMAIL**



**ATP: NETWORK**



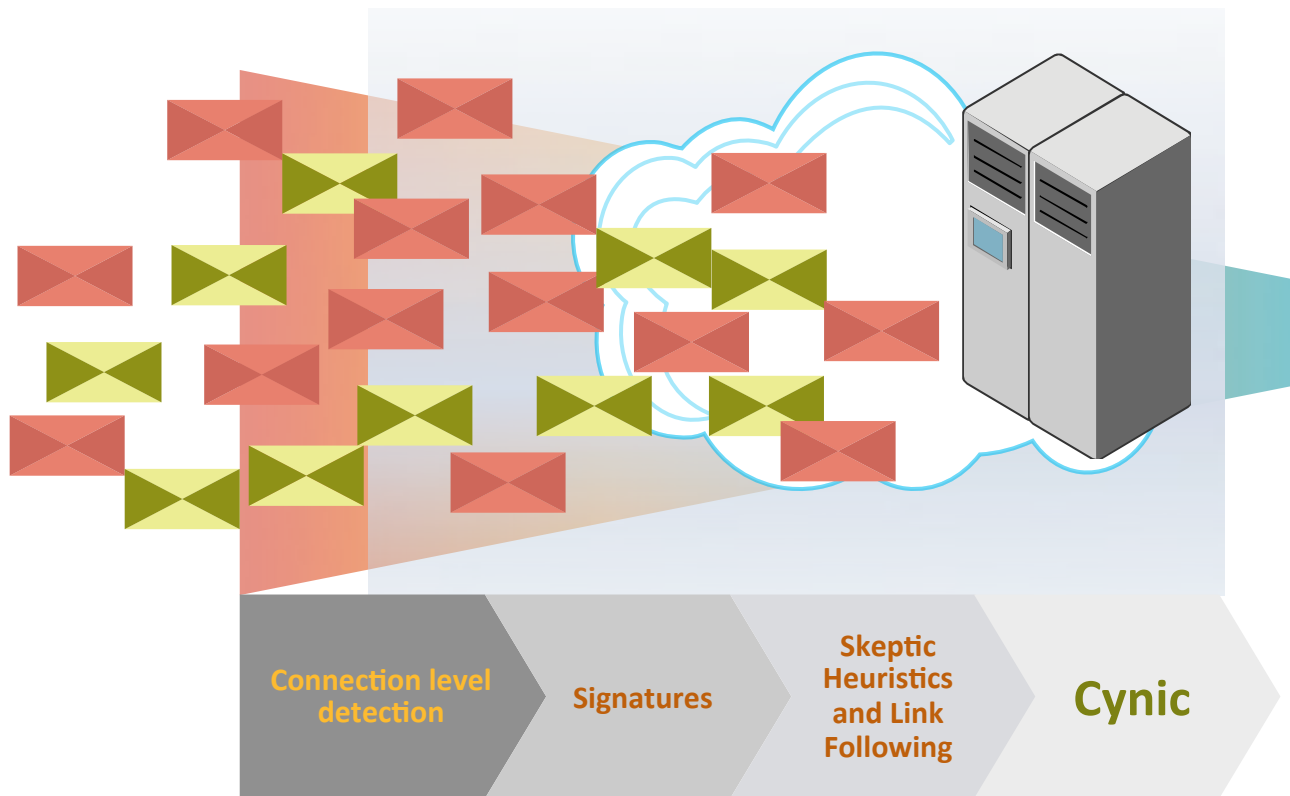
**ATP: ENDPOINT**



ATP Solution:

# Block, isolate and remove the advanced persistent threats

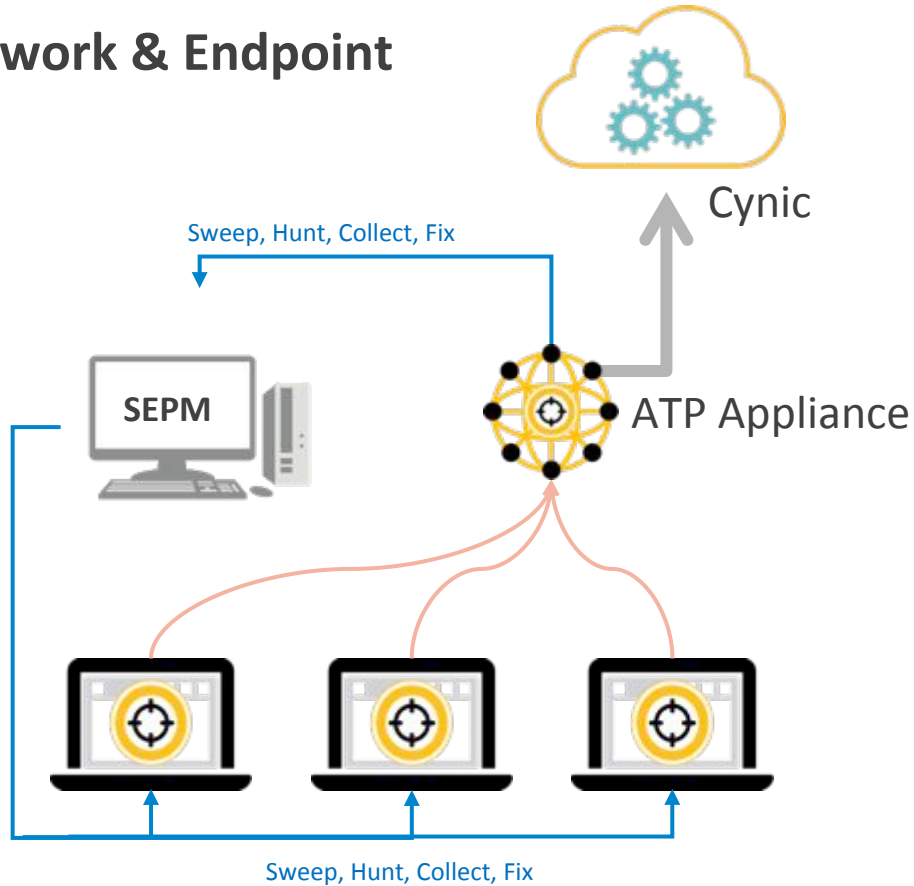
## First line of defense: ATP: Email



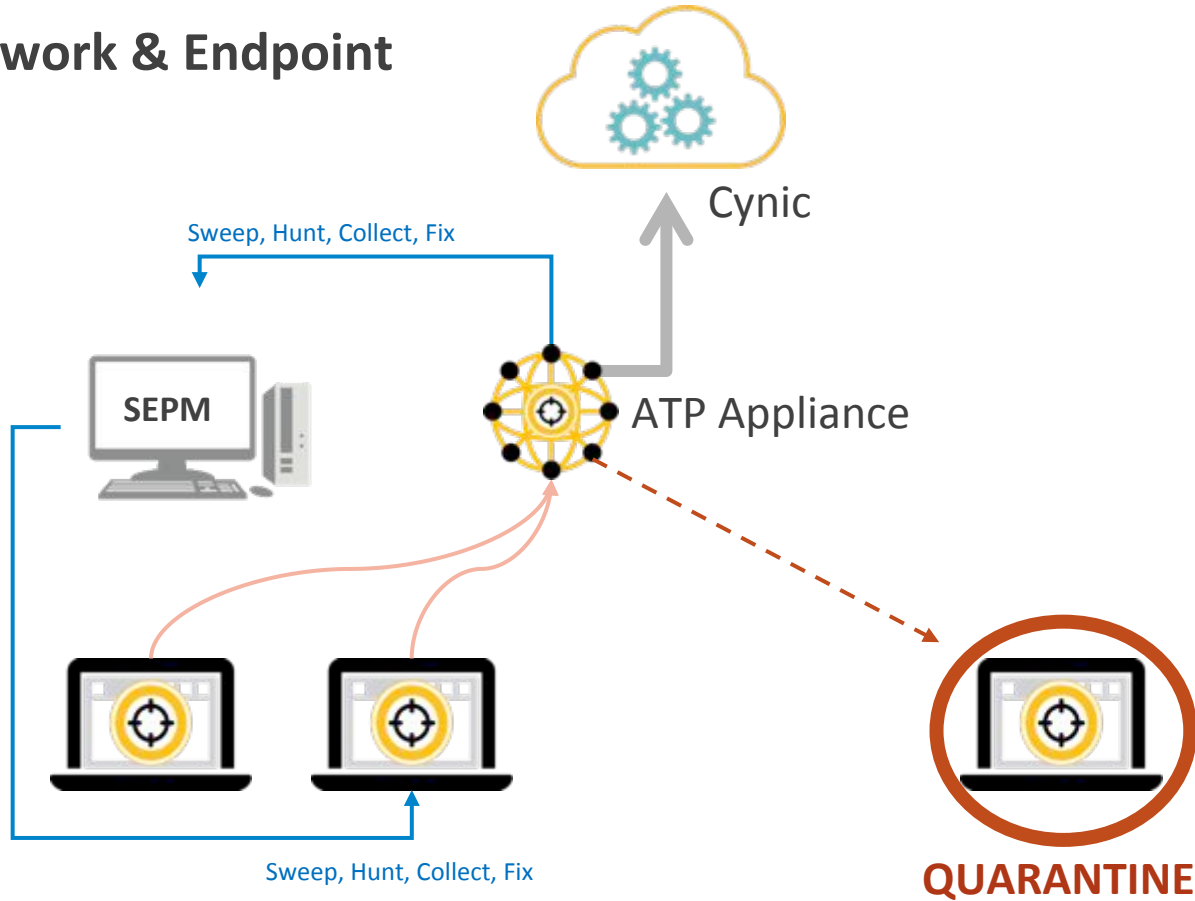
Anything without a verdict will be scanned by Cynic for a customer configured duration ( $\leq 20$  mins)

Malicious mail is quarantined and logged as soon as a detection method flags it

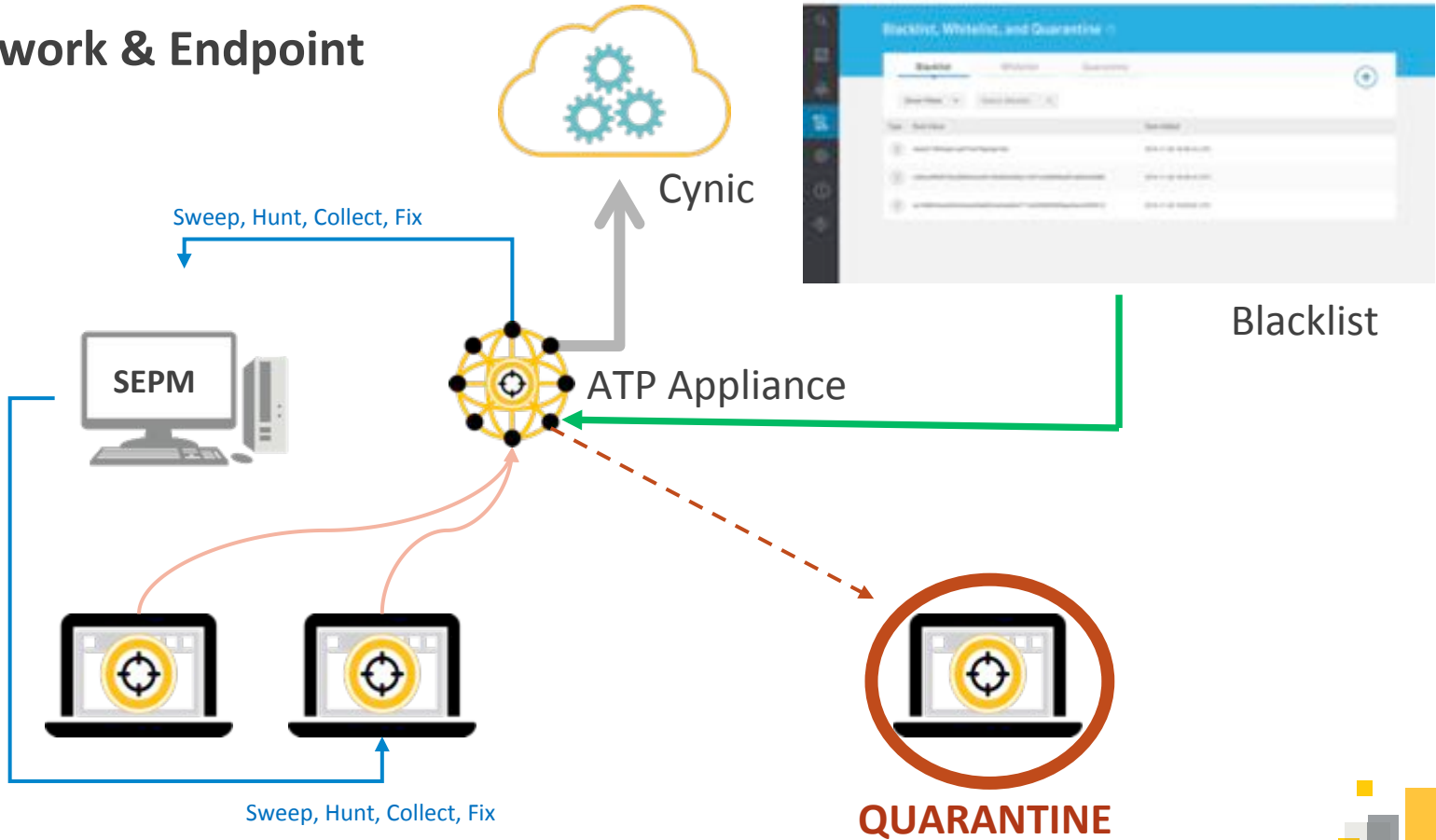
# ATP: Network & Endpoint



# ATP: Network & Endpoint



# ATP: Network & Endpoint



# Blacklist / Whitelist Valid Entries

## Domain

www.google.com

.gov.ca

## URL

gov.ca/dmv

http://stanford.edu/news

http://gość.pl/a

## IP/ IP Subnet

fe80::250:56ff:fe99:3903

10.10.10.10/24

10.10.10.10/255.255.255.0

## SHA256 Hash

e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b854

## MD5 hash

fe58cec593d7cdf2e0e9d13dfe1020b8



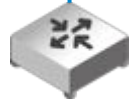
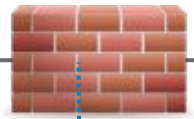
ATP Solution:

# Minimize environmental changes

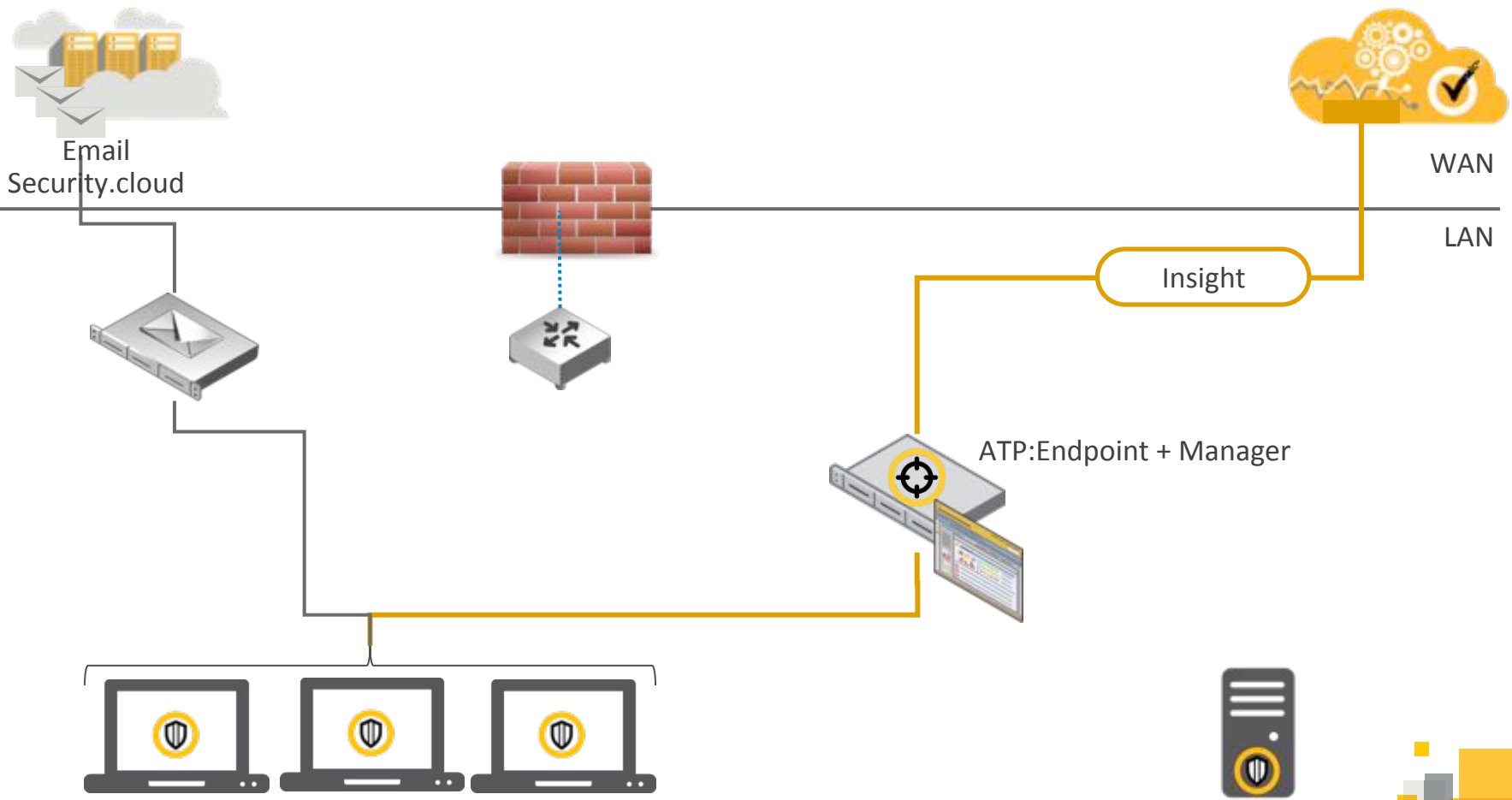


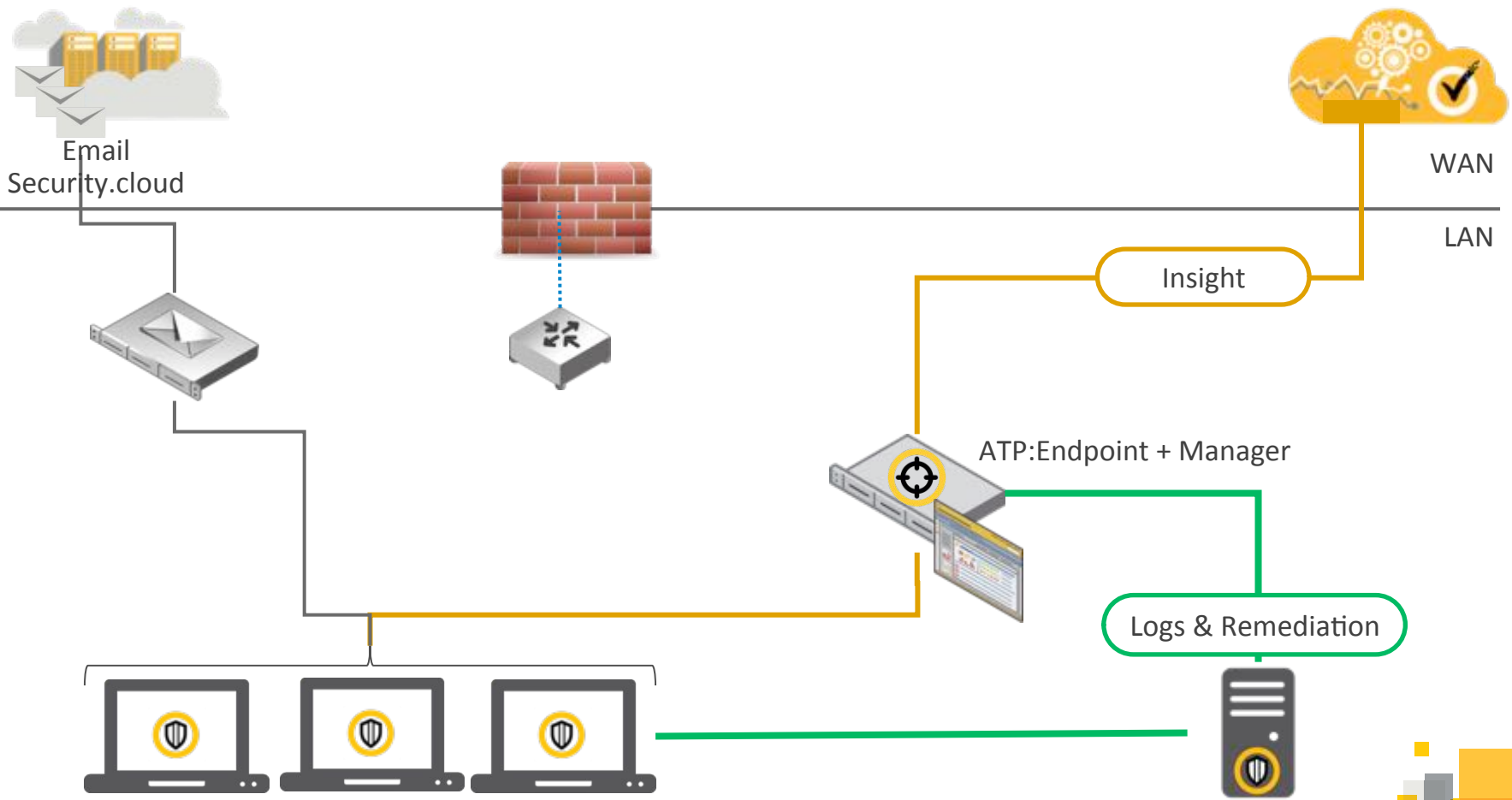
WAN

LAN









Email Security.cloud

WAN

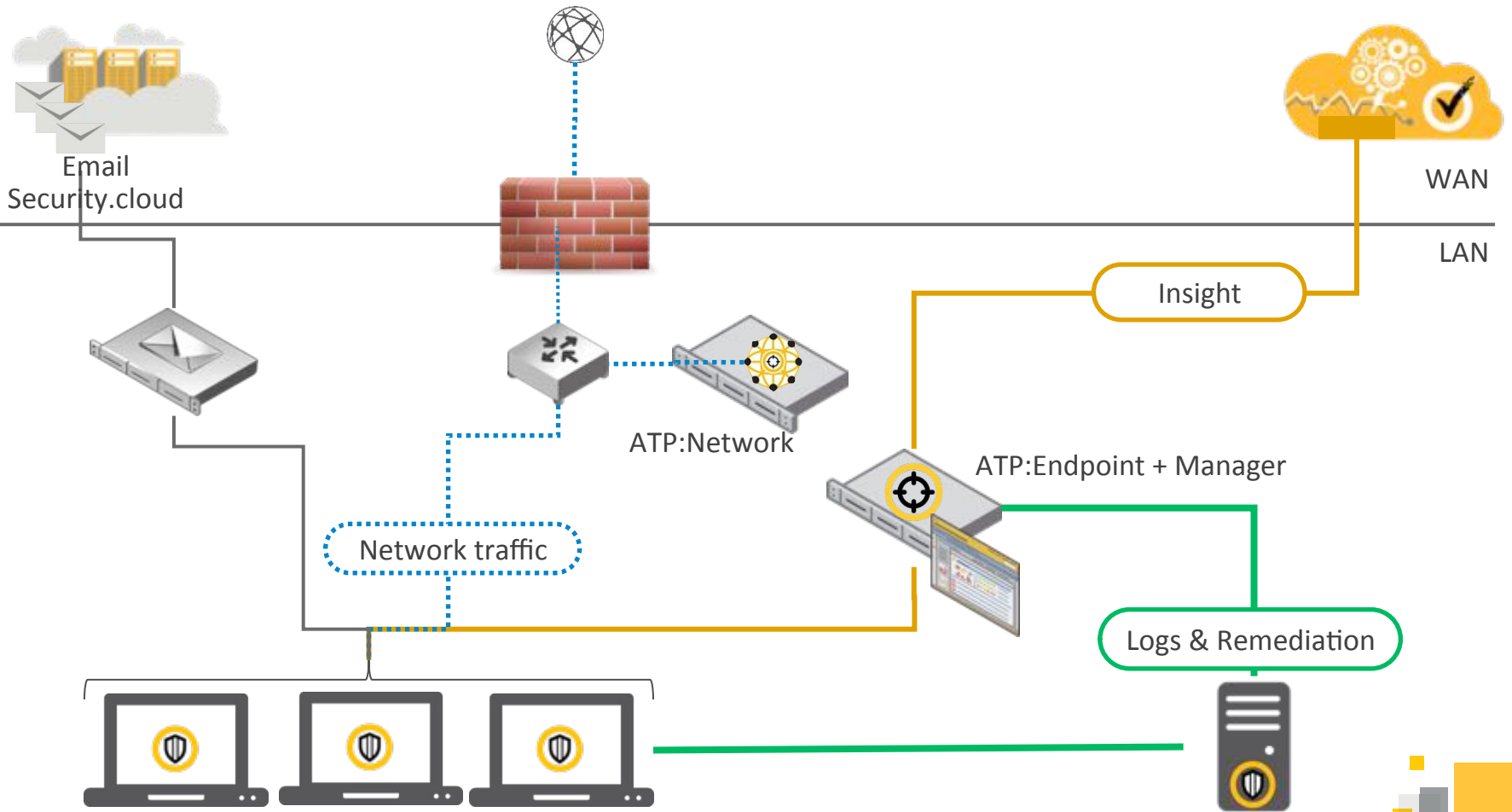
LAN

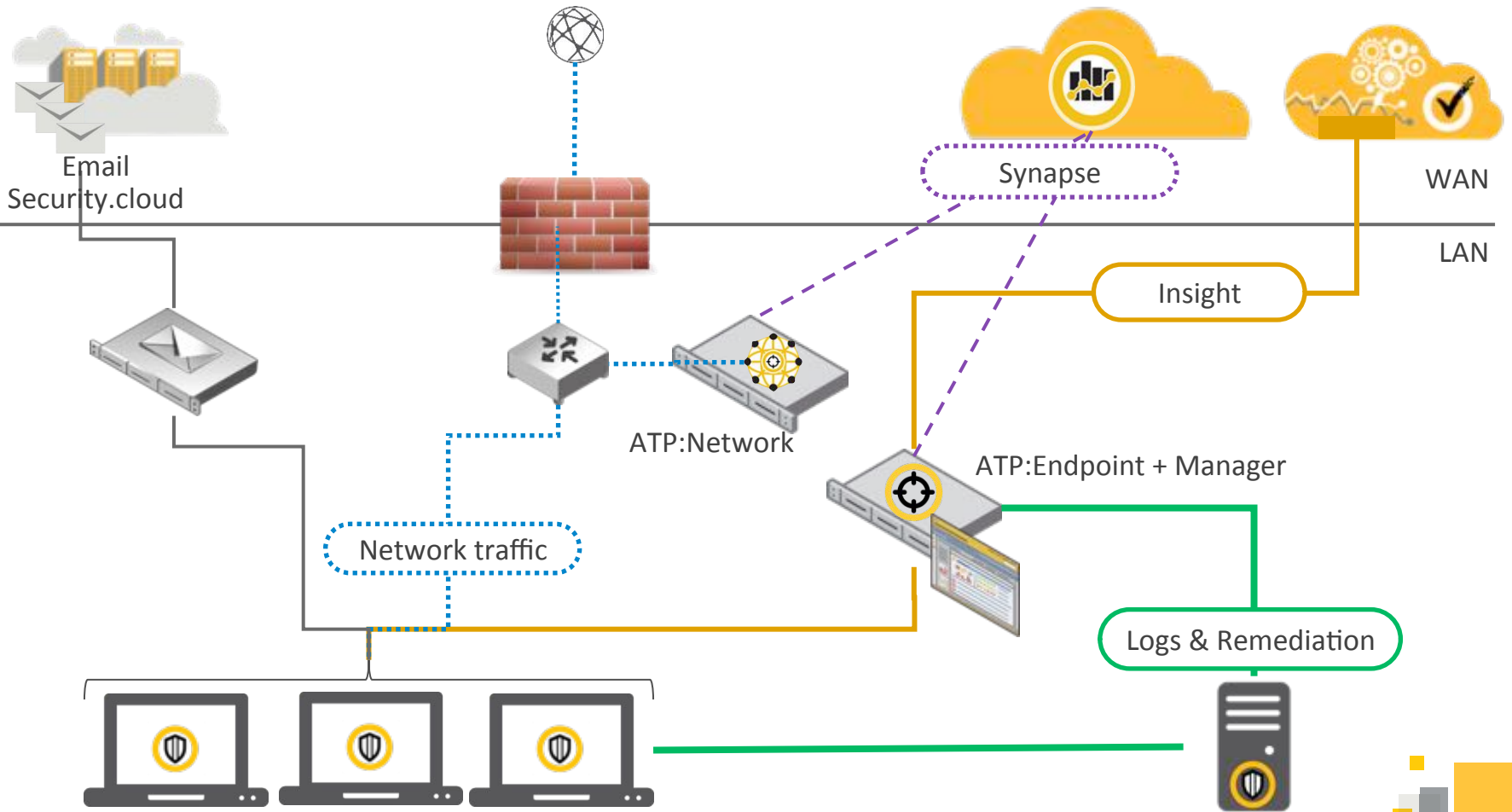
Insight

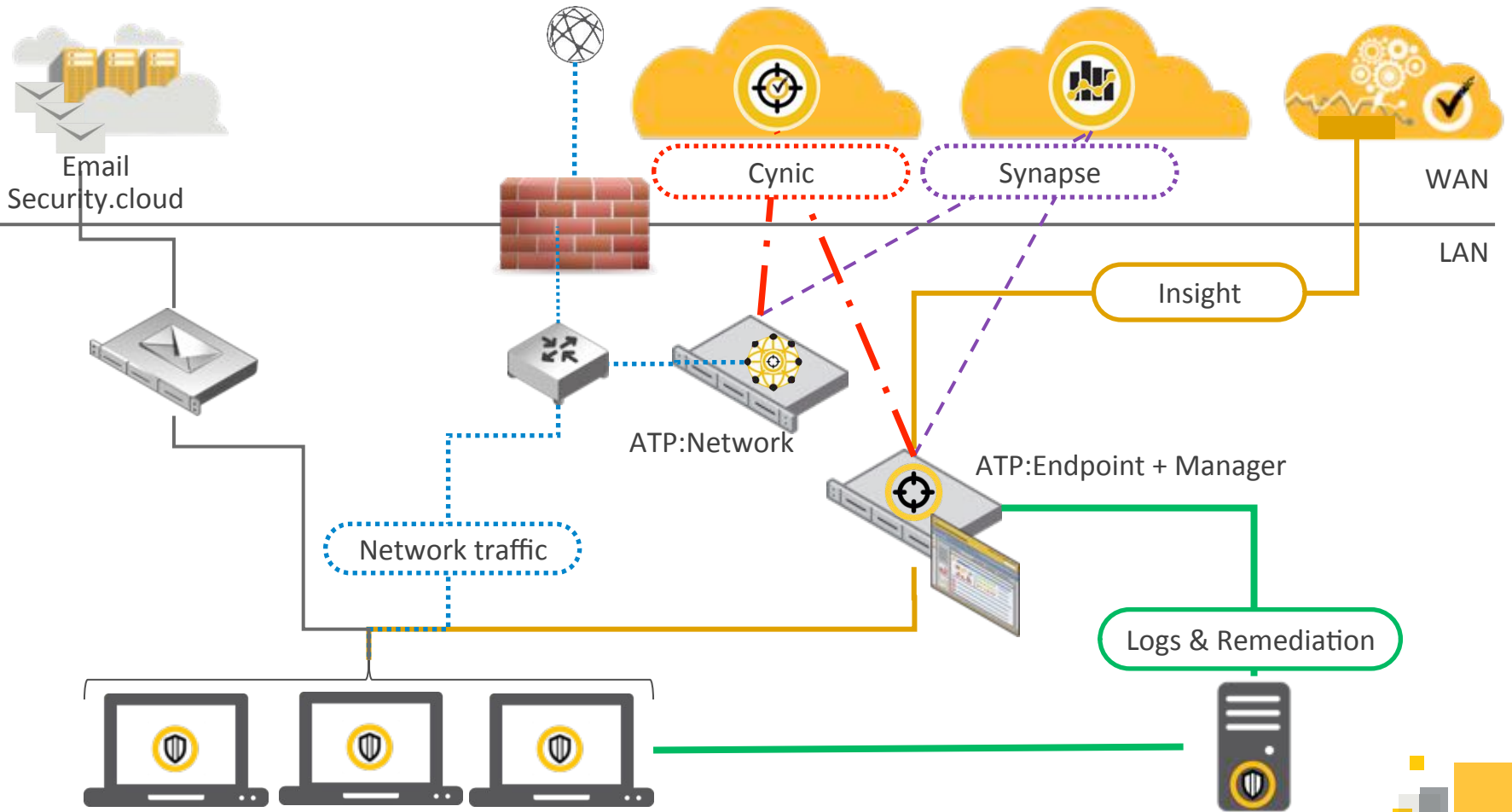
ATP:Endpoint + Manager

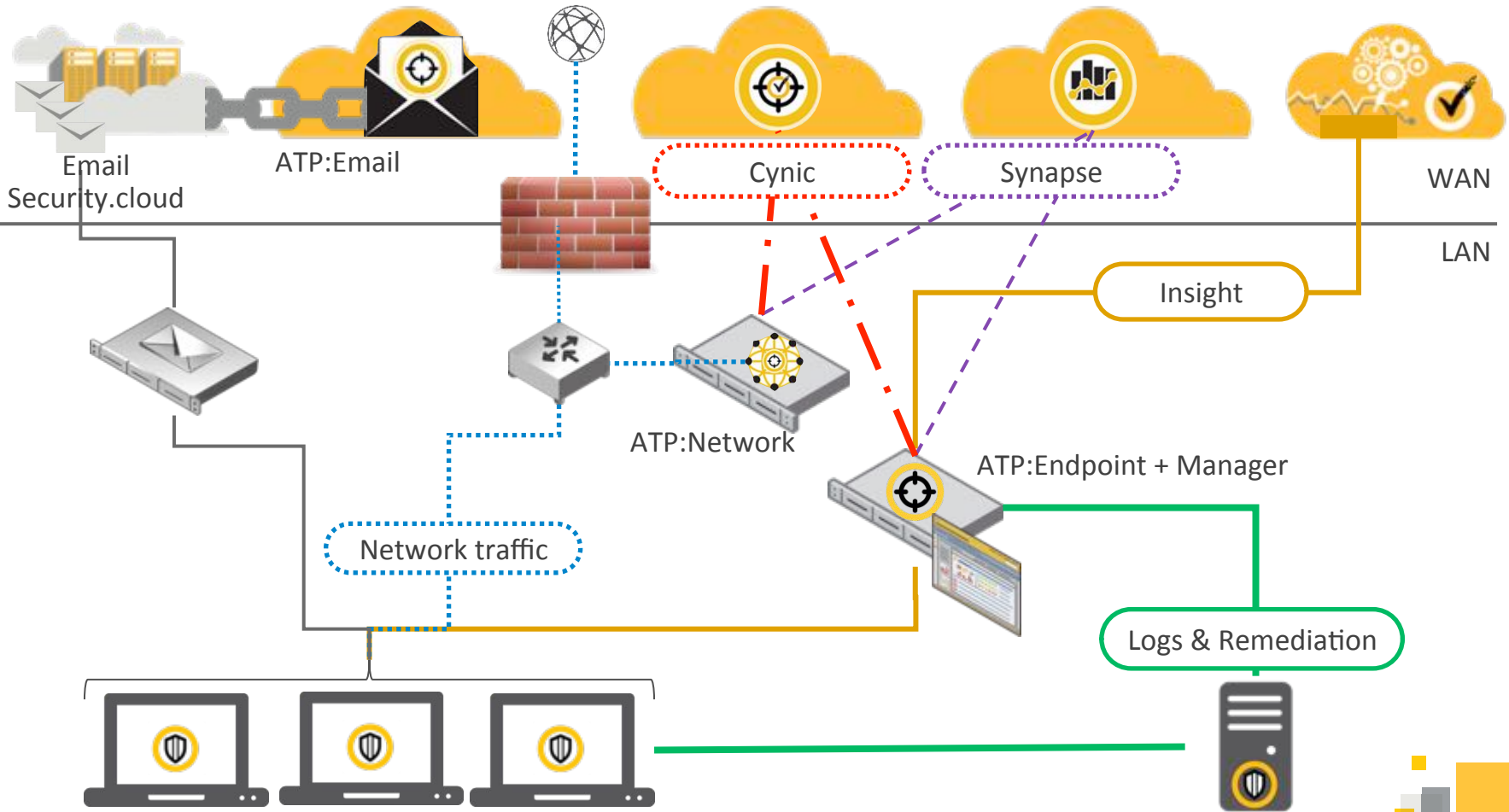
Logs & Remediation

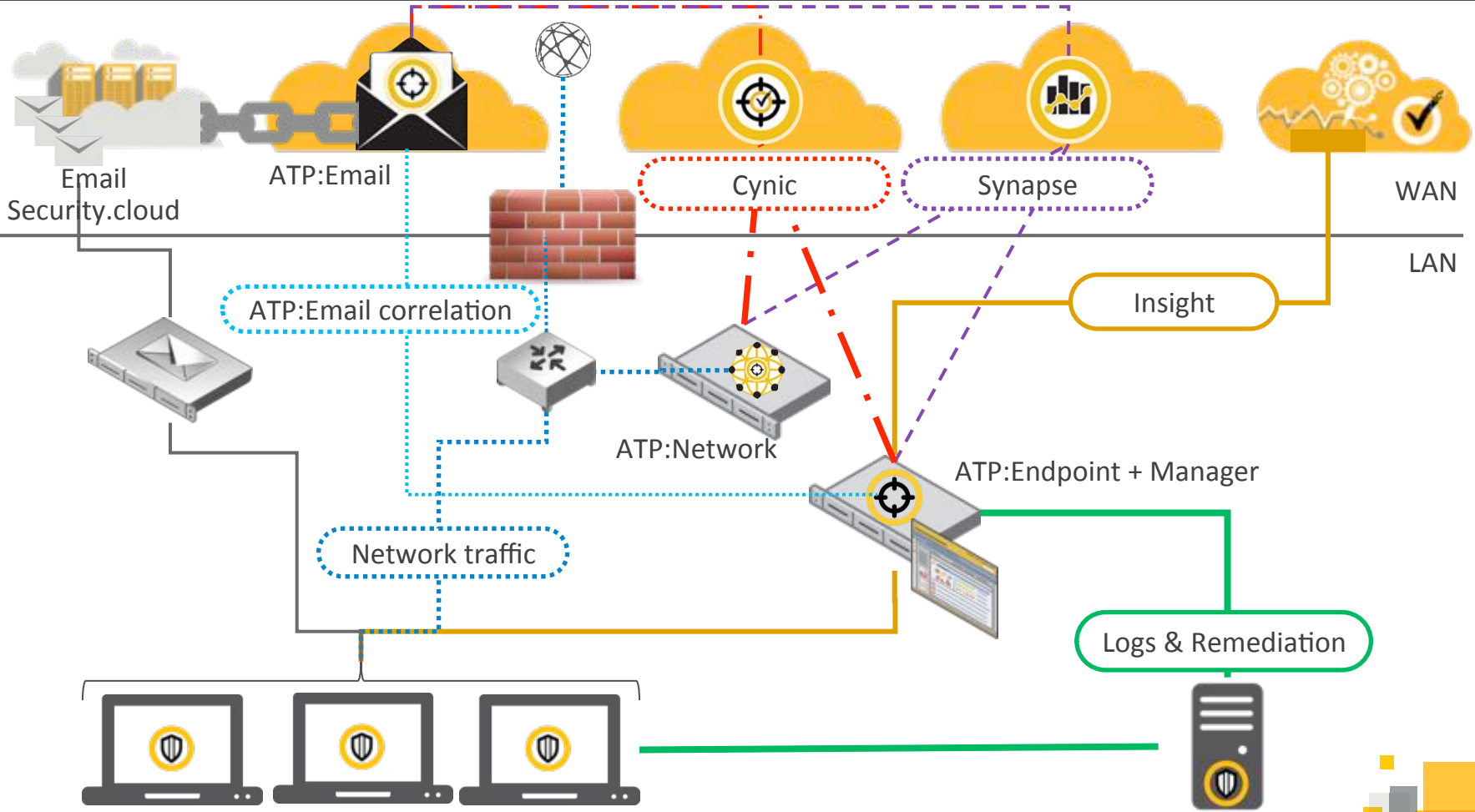




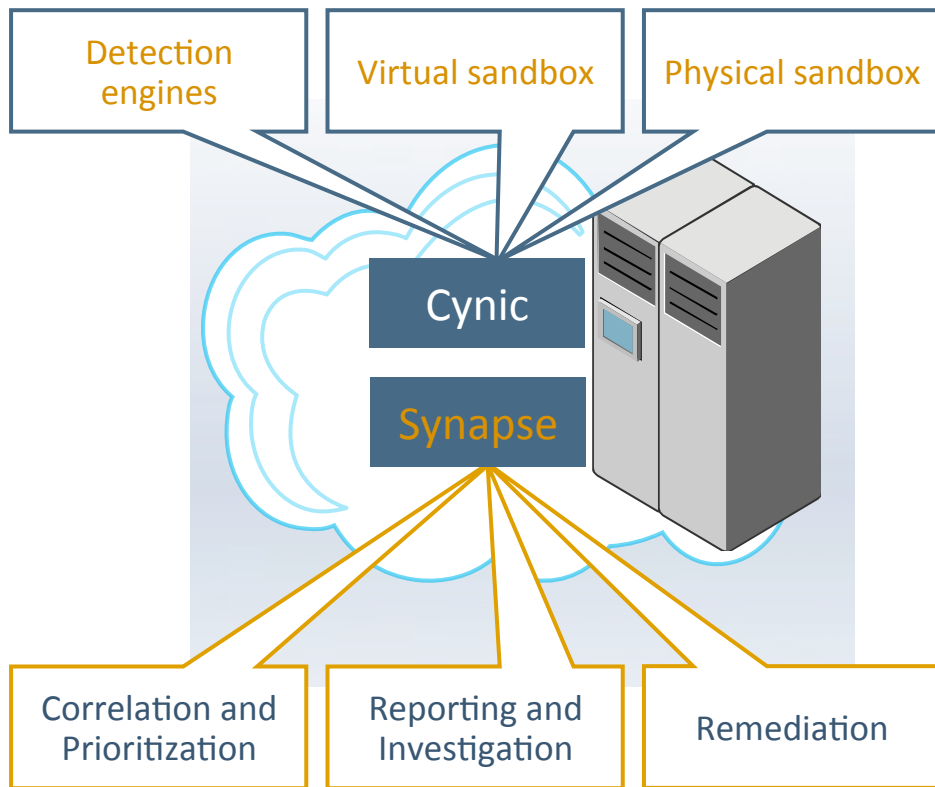








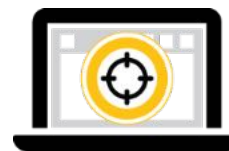
# Symantec Advanced Threat Protection



**ATP: EMAIL**



**ATP: NETWORK**



**ATP: ENDPOINT**



# **Symantec Services**

Helping you with all of your product needs



# Symantec **Technical Services** Supports You



## Consulting Services

Help me **DESIGN** it,  
**INSTALL** it,  
**ENHANCE** it



## Education Services

Help me **LEARN**  
about it & **USE** it



## Support Services

Help me **FIX** it

## Business Critical Services

Remote Product Specialist (RPS)

Premier (Value Based Services)

Help me **UNLOCK**  
**VALUE** &  
**OPTIMIZE** it



# Symantec **Education Services** Offers Effective Product Training



## Education Services

A broad range of training solutions to help you get the most out of Symantec products.

- Achieve expected value for your products.
- Learn how Symantec products can solve your business problems today and tomorrow.
- Gain best practice insight to keep your investments running smoothly long-term.
- For more information visit [training.symantec.com](https://training.symantec.com)

# Services for ATP – more help, more success!

## What to sell and who to contact

Service	What it is	Available when?	Global Contacts	Website
<b>Education Course Offering</b> 	ATP Incident Response Course available as Instructor Led Training or via Virtual Academy	Mid-2016	<a href="mailto:americas_education@symantec.com">americas_education@symantec.com</a> ; <a href="mailto:emea_education@symantec.com">emea_education@symantec.com</a> ; <a href="mailto:apj_education@symantec.com">apj_education@symantec.com</a>	<a href="#">Education Services website</a>
<b>BCS Premier for ATP</b> 	Symantec's premium Support Services offering, designed to simplify support, maximize return and protect IT infrastructure.	At Product GA	Contact BCS team members from the internal SAVO page or PartnerNet	BCS Contact Page
<b>BCS Proactive Services for ATP</b> 	Review of customer's ATP configuration and initial reporting from ATP console	At Product GA	Contact BCS team members from the internal SAVO page or PartnerNet	BCS Contact Page
<b>Consulting Services for ATP</b> 	On-site Implementation Services, Solution Assessment & Optimization & Residency Services	At Product GA	<a href="mailto:ask_consulting_americas@symantec.com">ask_consulting_americas@symantec.com</a> <a href="mailto:ask_consulting_asiapacificjapan@symantec.com">ask_consulting_asiapacificjapan@symantec.com</a> <a href="mailto:ask_consulting_emea@symantec.com">ask_consulting_emea@symantec.com</a>	<a href="#">Consulting website</a>



# Additional Resources and Summary



## RESOURCES

If you would like to know more about Advanced Threat Protection please visit: <https://www.symantec.com/advanced-threat-protection/>



## SUMMARY

During this presentation we have discussed how Advanced Threat Protection enables a customer to prevent advanced persistent threats, identify suspicious files and search for Indicators of Compromise. We also learned how ATP can block, isolate and remove the advanced persistent threats while minimizing environmental changes by leveraging a company's existing Symantec security investment.

