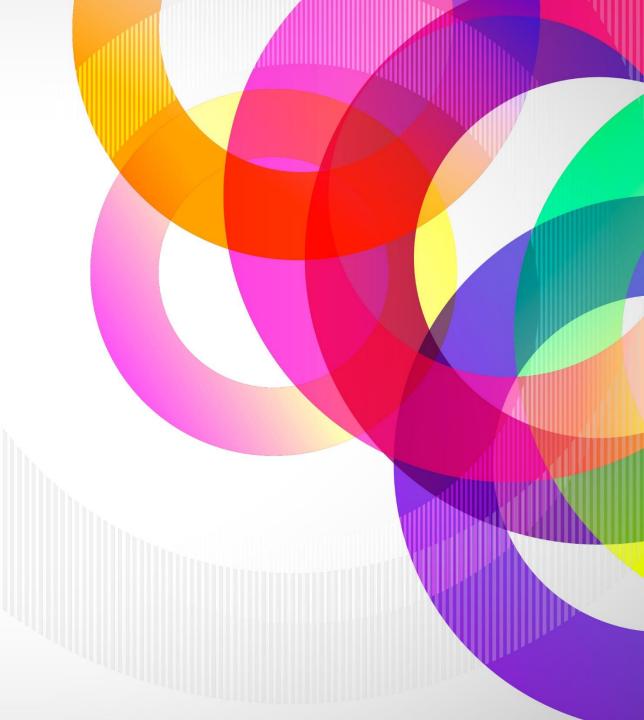


# INTRODUCING CLOUDGUARD NDR

**FULL PREVENTION CYCLE: Network Detection and Response** 



Uses non-signature-based techniques to detect suspicious traffic on enterprise networks

Models normal network traffic and highlight suspicious traffic that falls outside the normal range

Monitors and analyzes north/south traffic, as well as east/west traffic (as it moves laterally throughout the network).

Provides automatic or manual response capabilities to react to the detection of suspicious network traffic



Definition source: Gartner

(Previous name: Network Traffic Analysis)



# Gartner Analysis of The Market



### CloudGuard NDR





### **Security**

Security that creates security – Context based Prevention!



### **Automated**

Automated tailored security and full automation for the NDR closed cycle



### **Everywhere**

Network, Cloud, Endpoints, Mobile, IoT, and More – on a Single-pane-of-glass



#### **Recurrent Connections**

Use time to find devices repeatedly connecting to a rare external destinations hosted on suspicious infrastructure

#### **Geo Anomalies**

Use out of ordinary connections to detect potential attacks

03

### **Behavioral Anomalies**

Find spikes in regular daily work to detect abnormal behavior, unsolicited network reconnaissance and lateral movement attempts

### **Vulnerability Sonar**

(Patent)

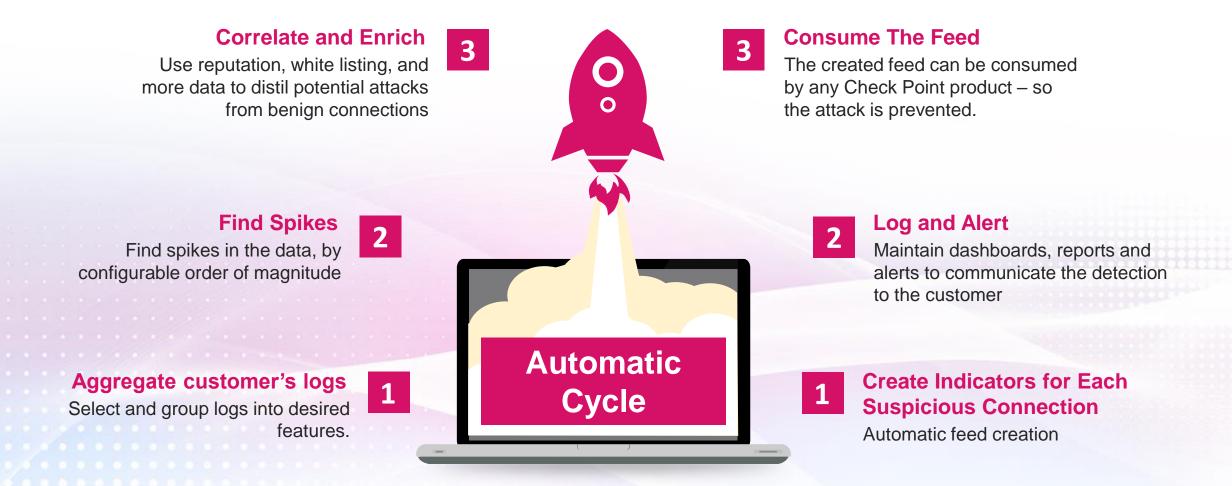
Analyze the response given to external scanners and deduces which of the scans actually found a vulnerability, and to which servers

### User behavioral anomalies

Find anomalies in user behavior to detect escalation of privilege and credential compromise attempts

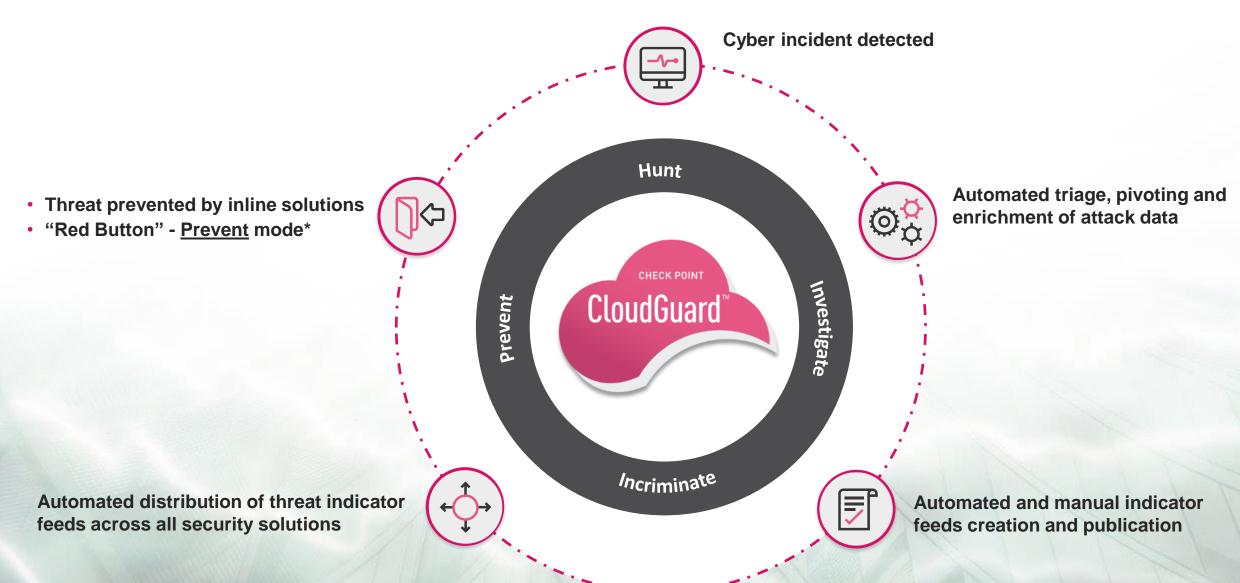


### The Full Cycle

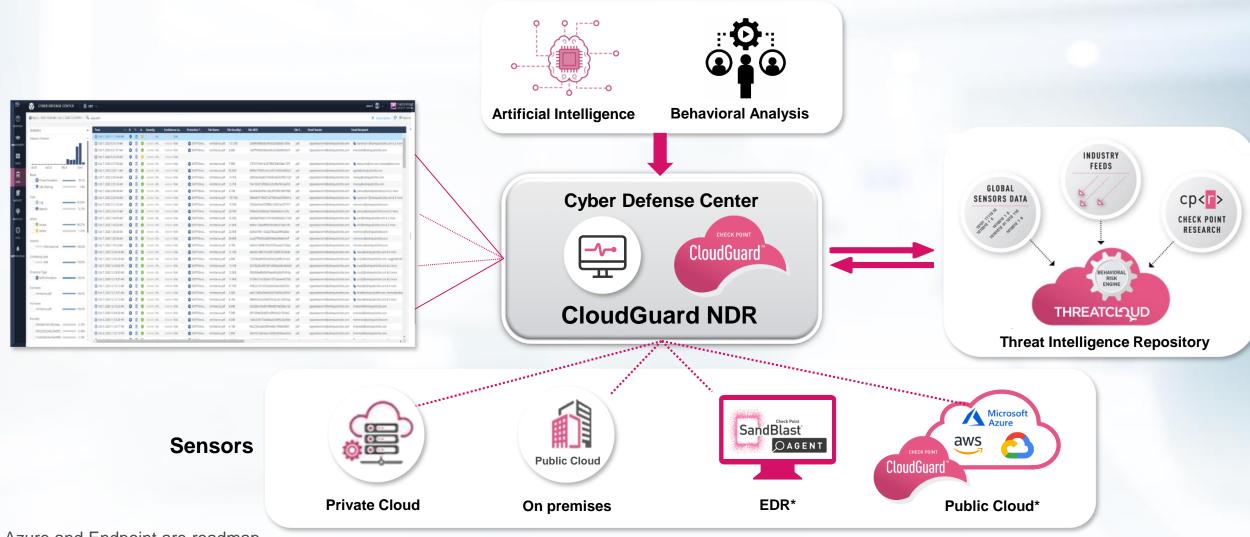




# Cloudguard NDR Closed-Loop Cycle

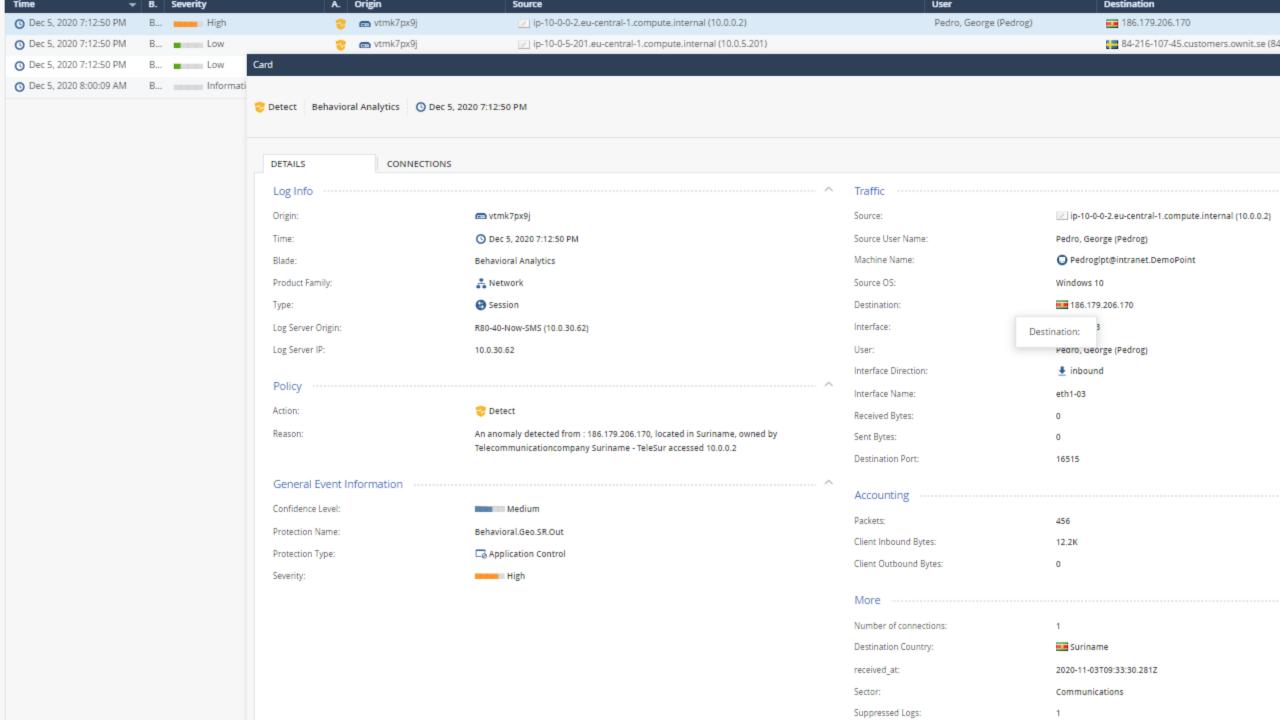


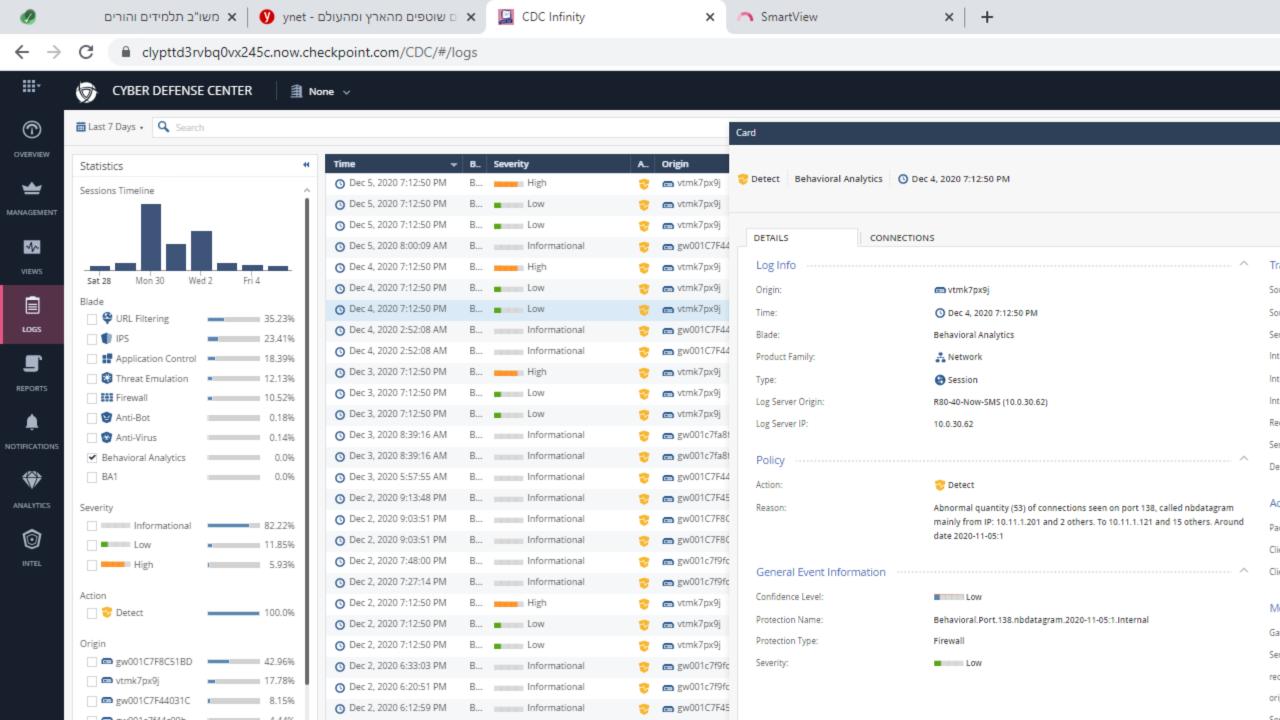
# Cloudguard NDR High Level Architecture



\* Azure and Endpoint are roadmap







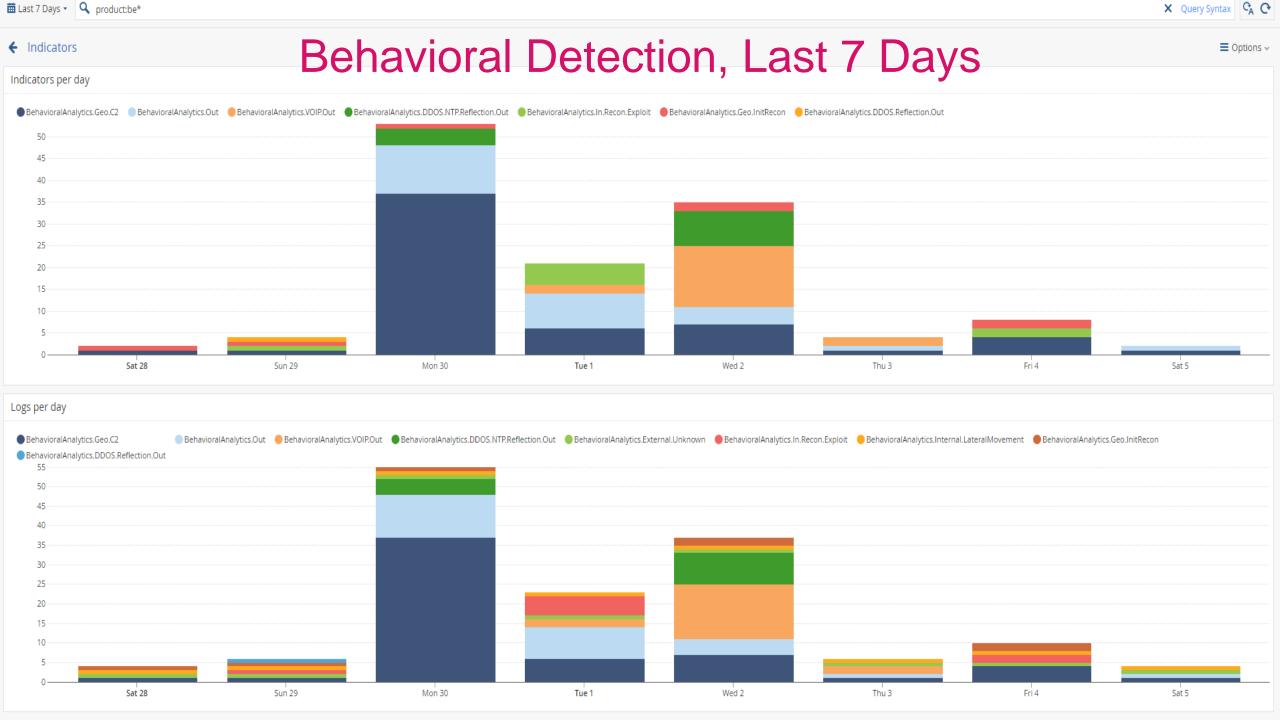
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	16:00 <b>57 K</b>	70 K	61 K	56 K	0	0	57 K	60 K	58 K	51 K	54 K	16 K	15 K	57 K	53 K	44 K	95 K	77 K	24 K	15 K	63 K	68 K	80 K	62 K	68 K	25 K	12 K	82 K
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سنة كان النبيا النبية	18:00 <b>78 K</b>	67 K	49 K	63 K	0	0	63 K	49 K	52 K	42 K	48 K	16 K	14 K	62 K	44 K	49 K	48 K	75 K	22 K	12 K	84 K	58 K	81 K	50 K	63 K	23 K	10 K	85 K
19:00 95 K 65 K 44 K 54 K 0 0 63 K 54 K 62 K 41 K 56 K 20 K 11 K 60 K 53 K 45 K 44 K 59 K 20 K 12 K 50 K 54 K 60 K 40 K 58 K 26 K 14 K 69 K	19:00 95 K	65 K	44 K	54 K	0	0	63 K	54 K	62 K	41 K	56 K	20 K	11 K	60 K	53 K	45 K	44 K	59 K	20 K	12 K	50 K	54 K	60 K	40 K	58 K	26 K	14 K	69 K

### False Positive Cleanup



# How Do The Engines Work?





### Results for 50 customers – Tuned low

~300 distilled new indicators per week

20% recurrent across different customers in different geographical areas

40% repetition in the same geographical area

80% True Positives



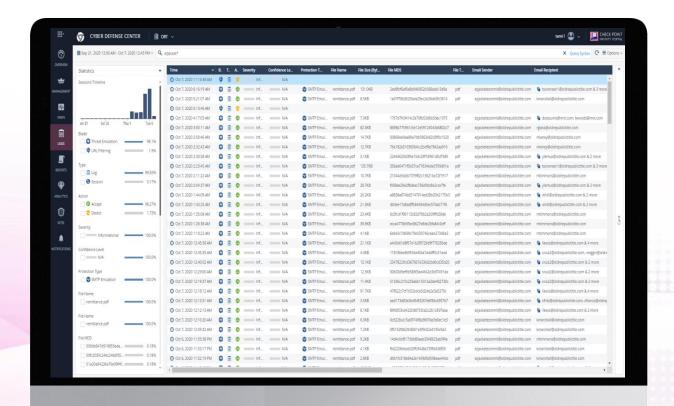
Customers can create their own intelligence feed, automatically adjusted to their context. Other Check Point products can automatically consume the feed and create a full detection to prevention cycle.





# Financial Company – US E-mail Phishing Campaign

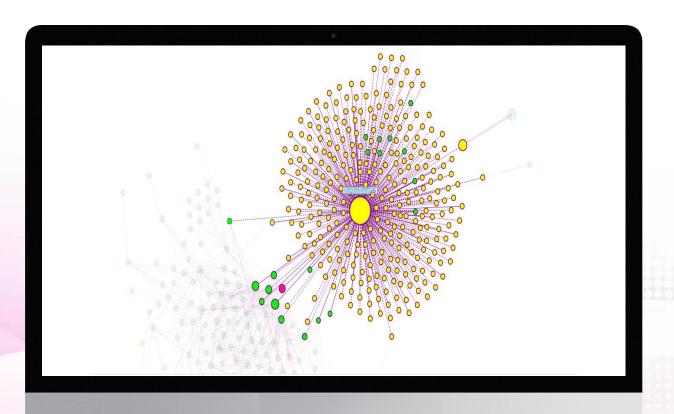
- **Behavioral Alert** Anomalous activity on mail port 25
- **Suspicious pdf attachment** Tons of mails were sent to recipients in the company with similar title
- **Different hashes** Each attachment with different hash
- **TE verdict** TE verdict: Benign



### Hospital In Israel

### **Unsolicited Network Scan**

- **Behavioral Alert** Regular host (not server) connecting to all machines in the segment
- Many ports, many destinations all internal Many detections from IPs
- Source immediately identified in the alert Employee running ncat inside the company
- The scanning was stopped No other detection





### State in US – Iranian Bot

- **Recurrent Connections Alert** Recurrent connections from one host to an unclassified IP
- Reputation server's verdict is "Unclassified" Owned by Iran Research Center of Theoretical Physics and Mathematics
- **Indicator Created** For the IP, and added to the feed
- No other detections regarding this IP Indicator is unique





# Trucks Company in Europe

### Malvertising

**Behavioral Alert** Abnormal connection to IP located in Kazkhtan

Reputation server's verdict is "Unclassified" Owned by a Kazkhtan host called Kaznic

Same IP being called also by other 03 organizations

With occasional detections, always from re-directions

**Browsing to the resources** results on advertising

> Indicator is added to the feed so the firewall can consume it







# **THANK YOU**

