



5th HVM New Materials
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AI-Based Autonomous Response: Are Humans Ready?

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Cyber Security, Darktrace

Company Overview

World-leading artificial intelligence for cyber defense

Creator of **autonomous response** technology

Headquartered in **San Francisco and Cambridge, UK**

1.65 BN
VALUATION

3000
CUSTOMERS

1000
EMPLOYEES

40
OFFICES

Forbes 
THE
2018 Cloud100

 **DISRUPTOR/50**
2018

FT | **1000**
FINANCIAL
TIMES | Europe's Fastest
Growing Companies


FASTCOMPANY
THE WORLD'S
MOST INNOVATIVE
COMPANIES 2018

 **DARKTRACE**

Evolving Threats in the Digital Age

- Increasing speed and sophistication
- Zero-days, IoT, insiders, 'low and slow'
- Digital complexity and diversity expands attack surface and limits predictability
- AI-powered threats in near future - will deliver targeted attacks at scale

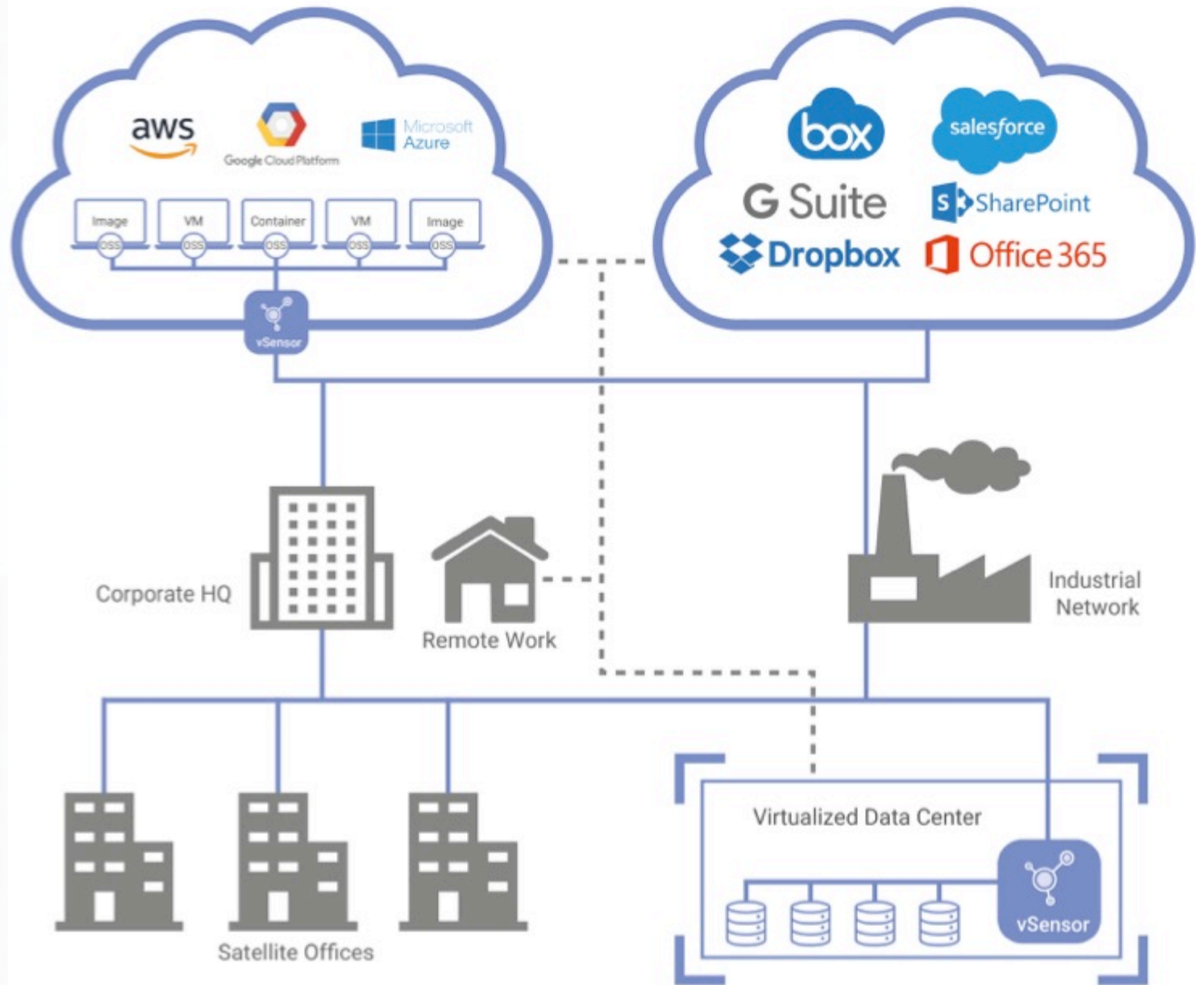
Legacy security is *constantly* outpaced



AI-Based Cyber Immune System

- Learns 'self' in real time
- Detects all forms of cyber-threat
- Works on cloud, SaaS, enterprise, industrial
- Fights back autonomously
- Scales up or down in diverse environments
- 100% visibility

Self-Learning AI For Your Entire Infrastructure





Cyber AI Response

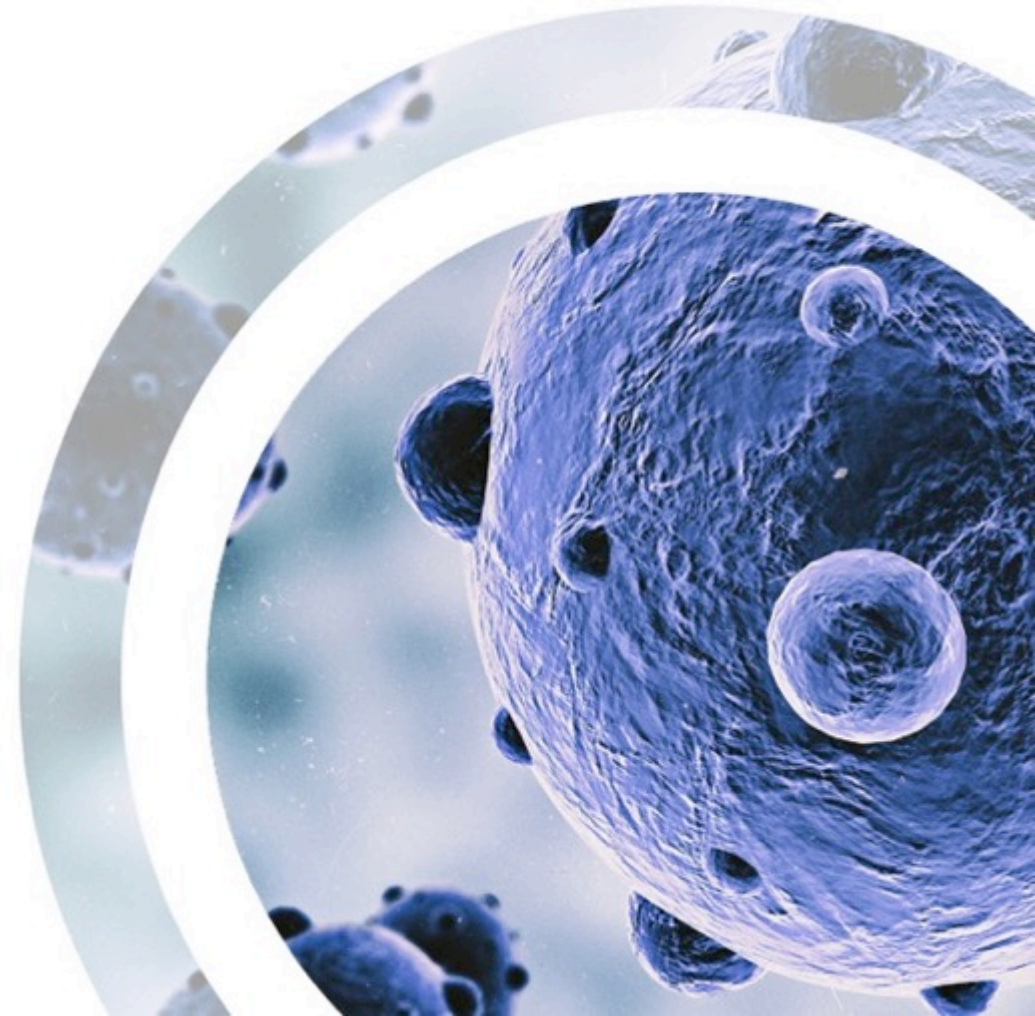
Modern Attacks Outpace Human Teams

- Destructive attacks target data or operational systems
- Aim for maximum impact in minutes
- Majority of organizations work 9x5
- Even when present, teams cannot investigate threats in minutes let alone respond to them
- We need self-defending organizations that are safe by default
- Digital antibody, surgical AI response



Autonomous Response

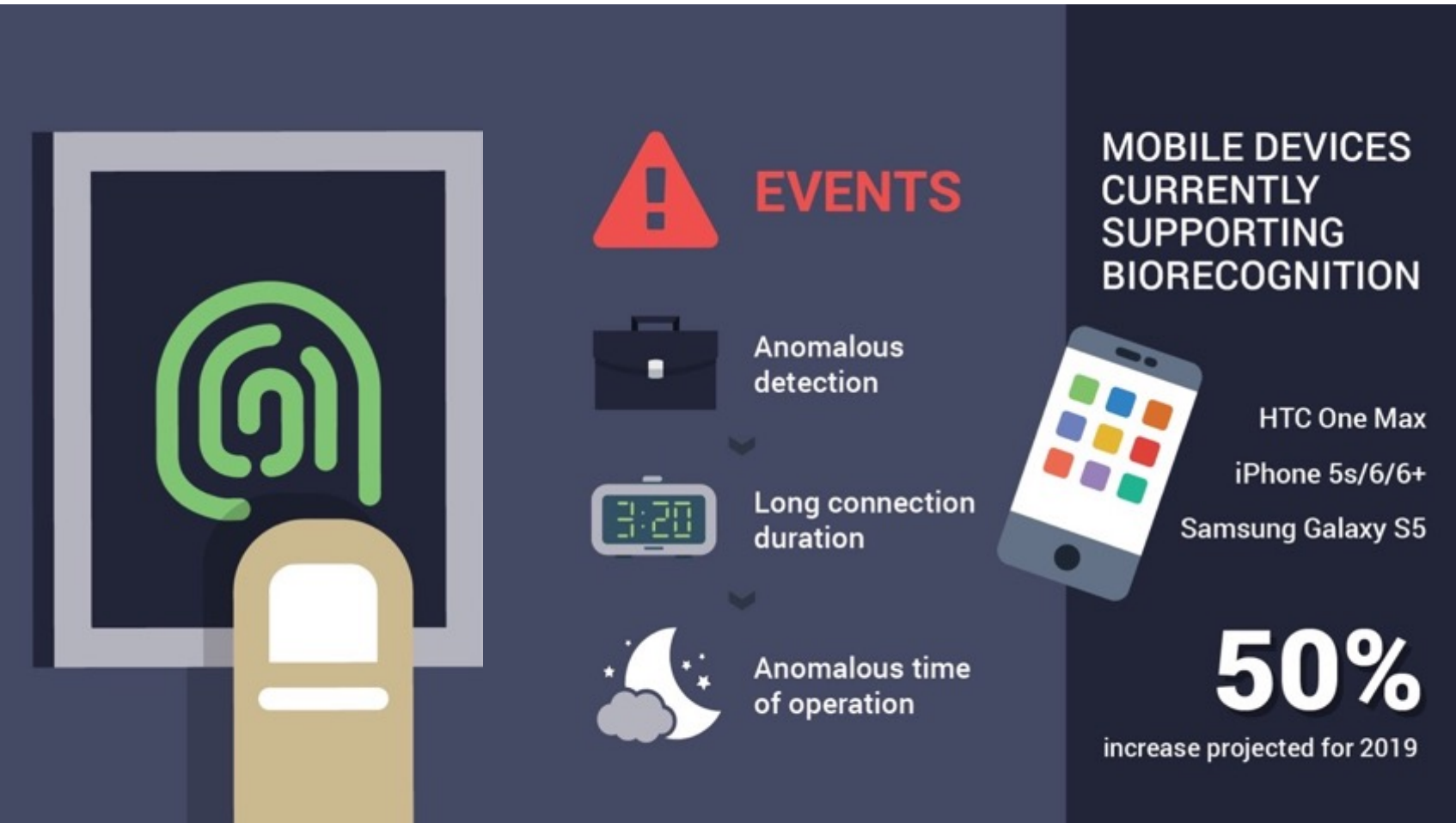
- Fight back against in-progress attacks
- Automatically produces real-time active responses to potential threats
- Targeted and proportionate response
- Not reliant on signatures or prior knowledge
- Gives humans time to catch up
- Sustains normal operations during attacks



Thousands of Unknown Threats Caught Every Day

- Zero-day trojans
- Insider threats
- Hacked IoT devices
- Compromised credentials in Salesforce & Office 365
- Critical misconfigurations in AWS, Azure, & GCP
- Long-term, stealthy cyber espionage
- Malicious crypto-mining
- Machine-speed worms and ransomware
- 'Low and slow' data leaks
- ICS and SCADA compromises

Case Study: Compromise of Biometric Scanner



- Industry: Manufacturing
- Attacker successfully exploited known software vulnerabilities in fingerprint scanner
- Able to control information sent to and from the fingerprint scanner
- Went unnoticed by traditional anti-malware solutions
- If undetected, malicious actors would have gained access to physical machinery

A glowing blue DNA double helix structure is shown against a dark background. The structure is composed of many small, bright blue particles that form the two strands and the base pairs connecting them. The helix is oriented diagonally across the frame, starting from the top left and moving towards the bottom right. The lighting is soft, creating a sense of depth and highlighting the intricate details of the molecular structure.

Thank You