BLUE HEXAGON

Network Threat Protection Harnessing the Power of Deep Learning

Keeping Up with the Threat Tsunami

Here's the reality of the threat landscape today: More than 300,000 malware variants are produced each day. That's 231 new malware per minute, 4 every single second[1].

When malicious, morphing malware is unleashed at that scale, traditional defenses are quickly overwhelmed. In fact, signature-based defenses cannot keep up with the speed and variants of new threats. Malware sandboxes have limitations with speed of analysis and file sizes, and are subject to evasion tactics.

A new approach to cybersecurity is needed to address the threat landscape of automated attacks:

- Threat detection must be at the speed malware is unleashed--in subseconds, not days, hours or minutes.
- Harnessing deep learning will deliver the speed and efficacy needed. Deep learning is the most advanced subfield of machine learning and AI, where artificial neural networks learn from large amounts of data. Neural networks trained with the massive threat data that exists today, can intelligently learn and make decisions on whether traffic is malicious.
- The best place to do this is closest to the source of attack-- the network-- to stop the threat as soon as possible and to prevent lateral movement deeper in the network

Blue Hexagon's **Real-time Deep Learning** platform is proven in actual customer deployments to detect network threats at a *speed, efficacy*, and *coverage* that set a new standard for cyber defense.

Network Threat Protection Powered by Deep Learning

Blue Hexagon has built the industry's **FIRST** real-time deep learning platform for network threat protection. Built by a team with decades of machine learning and deep learning expertise, the Blue Hexagon proprietary neural network architecture is designed for speed and efficacy. Blue Hexagon detects known and unknown threats in **less than a second** at nearly **100% efficacy** and **10G wire speed** performance. The platform works out-of-the-box and requires no baselining. **Near real-time prevention** can be enabled via orchestrated enforcement to endpoints, firewalls and web proxies, to block malicious traffic at the network or application.

According to the Verizon Data Breach Report 2018, "in 87% of breaches, compromise occurs within 87 seconds". Only Blue Hexagon can address the speed of compromise -- stopping the the very first victim in the organization from being infected and preventing an attack from spreading. This can translate to tangible savings and efficiencies in the following -- remediation costs, SOC analyst investigation efforts, data breach disclosure fines, infected machine clean-up operations.

Industry's First Real-time Deep Learning Platform

Detect threats in less than a second

Detect known and unknown threats, even zero days seen for the first time, in sub-seconds

Works out of the box on day one

Completely automated with pre-trained AI models, requires no human triage, and has no "learning delays"

Proven efficacy in real-world deployments

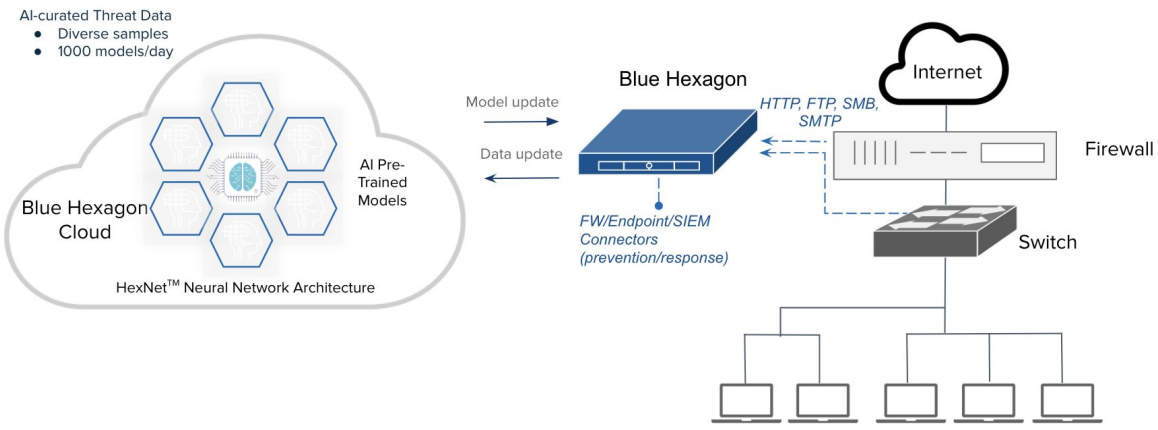
Unmatched detection rates and low false positives compared to sandboxing and signature-based solutions

Integrates with existing security solutions

Enable inline prevention or orchestrate prevention via network access control, endpoint, and firewall

[1] *AV-Test GmbH - "How AI can help stop cyberattacks", Wall Street Journal*

Real-Time Deep Learning for Network Threat Protection



The Blue Hexagon platform consists of two components -- cloud and on-premises. The Blue Hexagon Cloud is where the proprietary HexNet™ architecture of deep learning models are optimized and trained. These models are then delivered locally on Blue Hexagon Appliances that can be in physical or virtual form factors. The appliances are installed at the ingress to the enterprise network to inspect North-South perimeter traffic. Deployments can be in network tap or span mode. Installation takes minutes and threat detection works out of the box immediately without requiring any baselining. Prevention can be enabled on endpoints, firewalls or web proxies.

Features:

Architecture Optimized for Efficacy - The HexNet™ architecture has been designed to detect threats in subseconds. The proprietary architecture of neural networks works seamlessly to deliver threat verdicts.

AI-Curated Threat Data for Training - The same deep learning techniques used by Blue Hexagon for threat detection are also applied to the massive amount of threat data that is used for training. Threat samples are curated to enhance efficacy and learnings of different types of threats.

Real-time Deep Learning Inspection for Payload and Headers - Inspection of the complete network flows delivers higher efficacy and perspective on mal-intent. Deep learning inspection is performed on payloads, network headers, C2 communications and URLs in less than a second.

Real-time Classification - Every threat detected is automatically classified by the HexNet™ neural networks in real-time. Threat family information and indicators of compromise are provided for deeper analysis by security teams.

Dashboard and kill chain visualizer - Security teams receive access to a dashboard in the cloud with threat details, including complete kill chain visibility into infected systems and hosts including communication between systems/hosts, and external communications to malicious domains.

Global Threat Cloud - Blue Hexagon incorporates deep learning to classify threats from various intelligence sources. This data is shared with all customers to deliver predictive intelligence into the types of attacks that are targeting specific industries.

Automated and orchestrated prevention - Enterprises can choose to implement in-line prevention, or orchestrate prevention via Blue Hexagon connectors. Connectors enable prevention policies to be orchestrated to endpoints and firewalls. Syslog integration into SIEMs is also supported.

Blue Hexagon Labs - Every customer deployment benefits from the elite deep learning and cybersecurity experts within Blue Hexagon. The team provides analysis of industry and company specific attacks to customers.

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Blue Hexagon is a deep learning innovator focused on protecting organizations from cyberthreats. The company's real-time deep learning platform is proven to detect known and unknown network threats with speed, efficacy, and coverage that set a new standard for cyber defense. Blue Hexagon is headquartered in Sunnyvale, CA, and backed by Benchmark and Altimeter Capital. For more information, visit www.bluehexagon.ai or follow @bluehexagonai.

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