
BLOX FEST
Infoblox

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Insight Driven Networks Create Enterprise Value

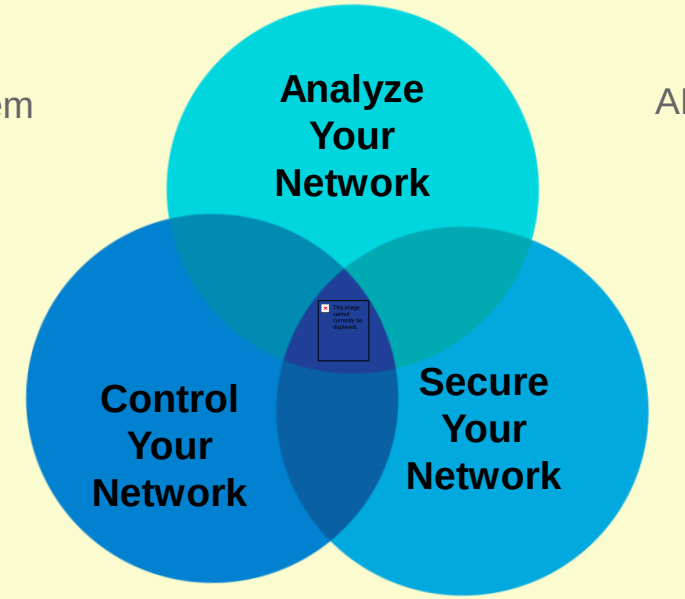
Next Generation Data Center | **Security and Compliance** | **Digital Economy**

Noise

Actionable Network Intelligence Platform

Eco-system

APIs



Authoritative Distributed Database

Business Outcomes

- Customer Experience
- Risk Management
- Operational Efficiency
- Visibility

On Premise | Hybrid | Cloud

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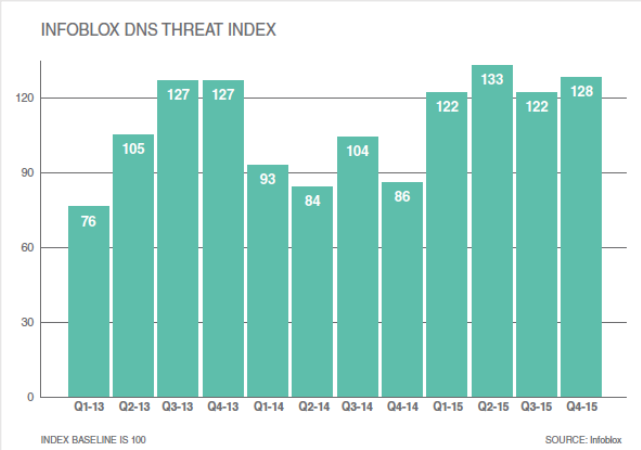
Security Landscape

US-CERT
UNITED STATES COMPUTER EMERGENCY READINESS TEAM

DNS Threat Index

The threat index reached a record high in Q1 2016 to 137—surpassing the previous record high of 133 set in Q2 2015.



DNS – The Hacker's Control Plane

91% of malware—relies on DNS for command and control

431M

New unique pieces of malware in 2015[2]

#1

Malware C&C is #1 responsible vector for Crimeware[3]

DNS-based Data Exfiltration

"Multigrain" PoS malware exfiltrates card data over DNS

46%

Of large businesses have experienced DNS exfiltration[1]

>$3.8M

The average cost of a single data theft occurrence[2]

Threat Intelligence Data Sharing

Cybersecurity Information Sharing Act of 2015

The Automated Indicator Sharing (AIS) initiative

The Security Silo – Industry Analyst

"Silos between network, edge, endpoint, and data security systems and processes can restrict an organization's ability to prevent, detect, and respond to advanced threats…"

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Infoblox Security Vision

Deliver Industry Leading DNS Security Solutions

- Protect DNS
- Break the Malware Control Plane

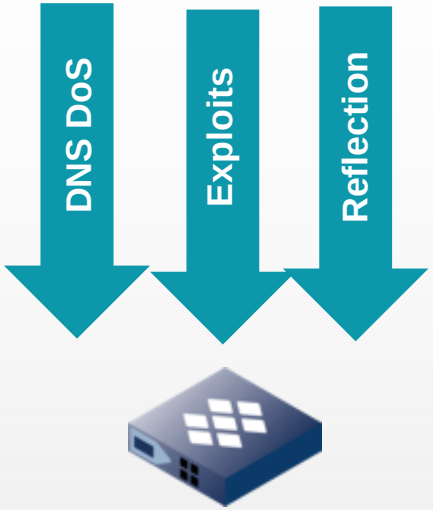
Become the Threat Data and Intelligence control plane for security deployments

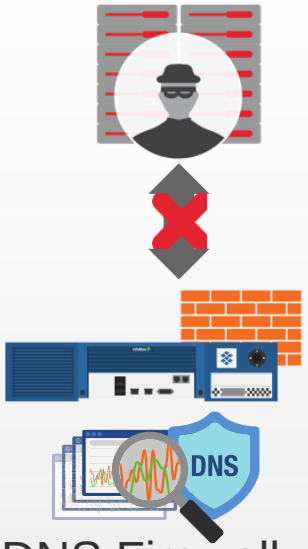
- Deliver a Threat Intellligence Data Exchange
- Break the Security Deployment Siloes

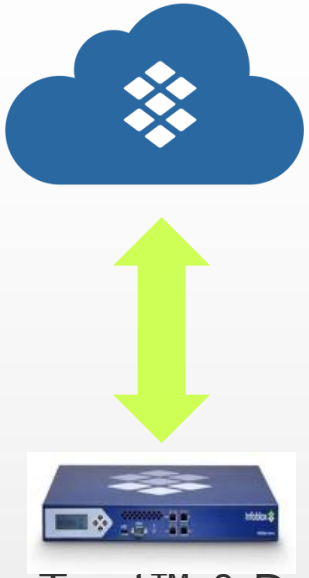
Security Strategy

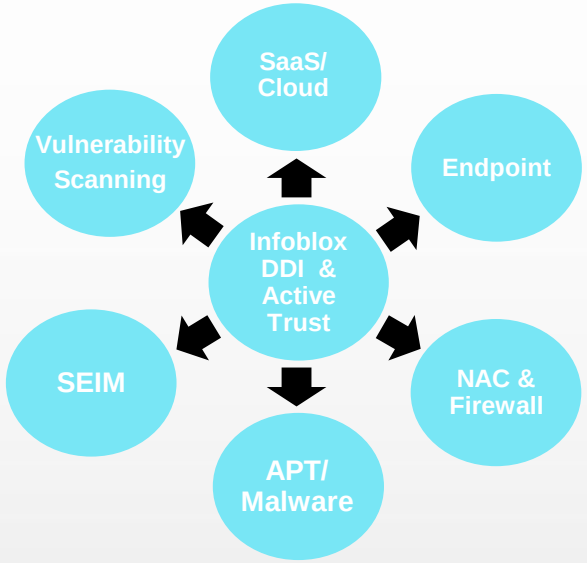
Solution Strategy

Secure DNS	Breaking the Malware Control Plane	Threat Intel Data Exchange	Security Control & Data Plane









Product Strategy

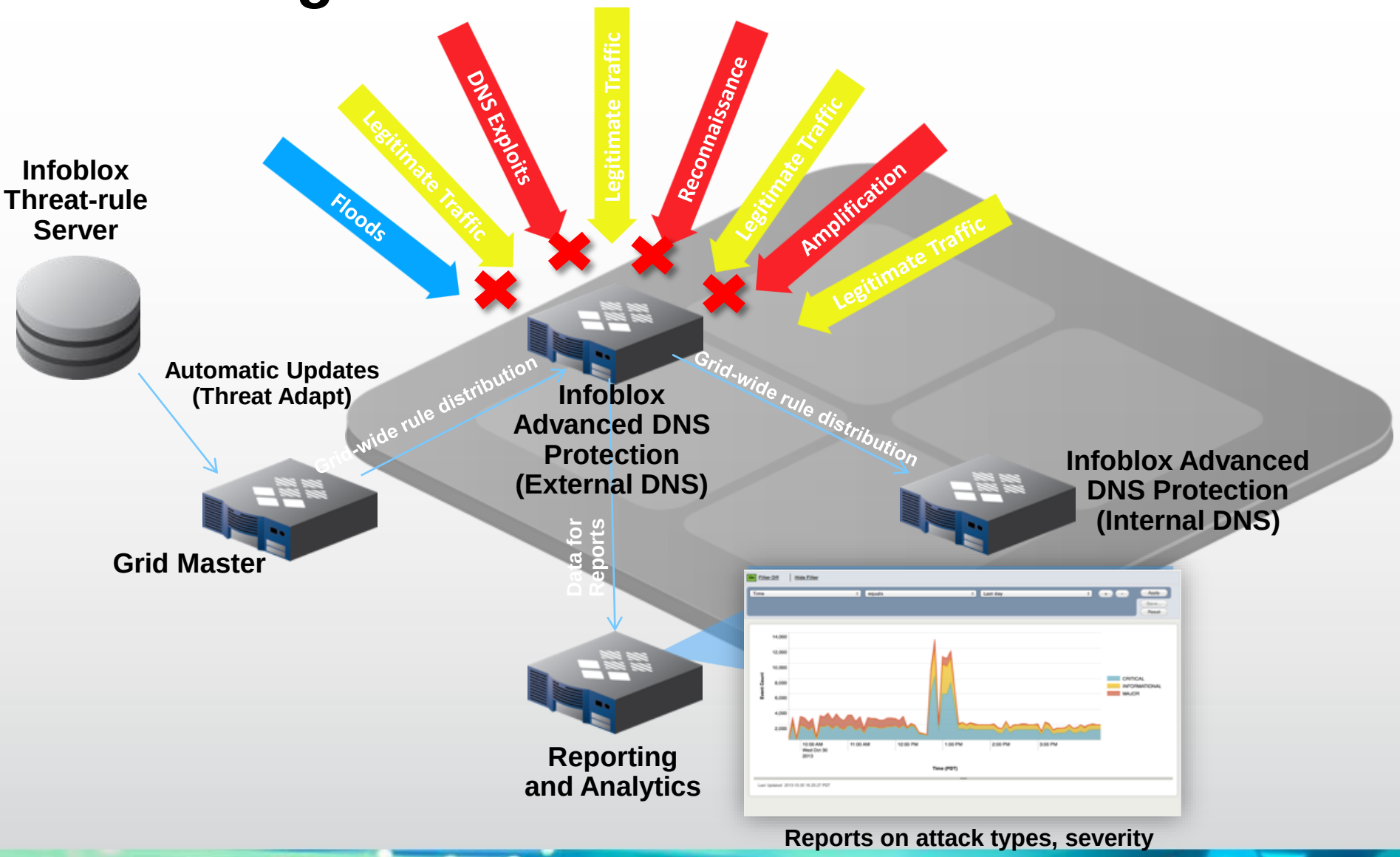
Advanced DNS Protection (DDoS)	DNS Firewall Threat Insight	ActiveTrust™ & Dossier	Secure Data Exchange Ecosystem API's

Technology Strategy

- Ecosystem
- Analytics
- Threat Intelligence
- Data Sharing

Secure DNS: Infoblox Advanced DNS Protection

Protecting critical DNS services

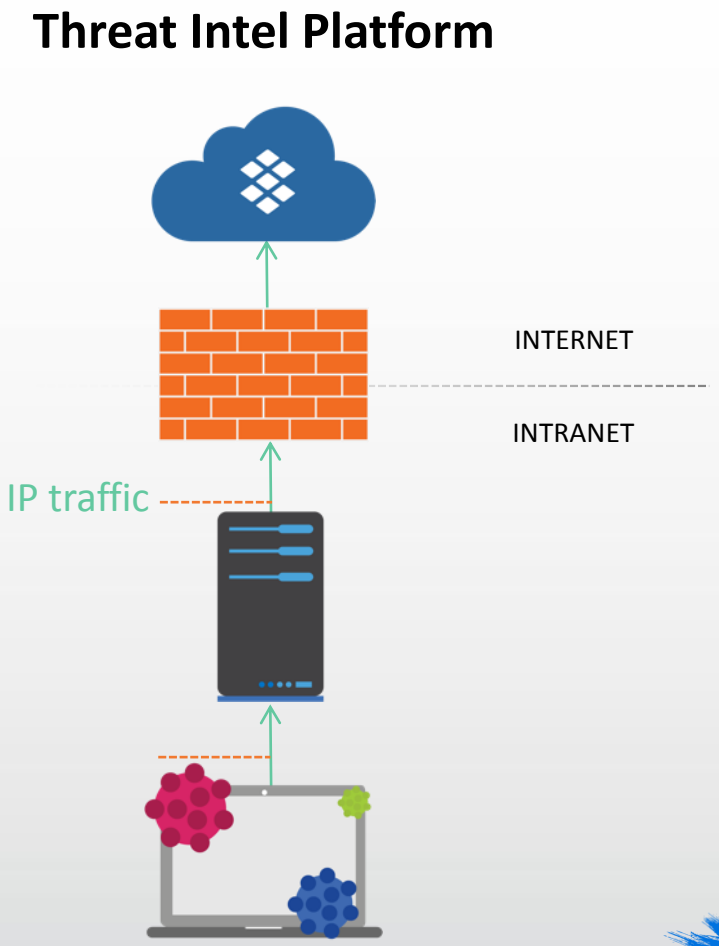


- Hardened OS
- Dedicated platforms designed to withstand DDOS attacks
- Signatures to detect and block exploitation of vulnerabilities

Breaking the Malware Control Plane

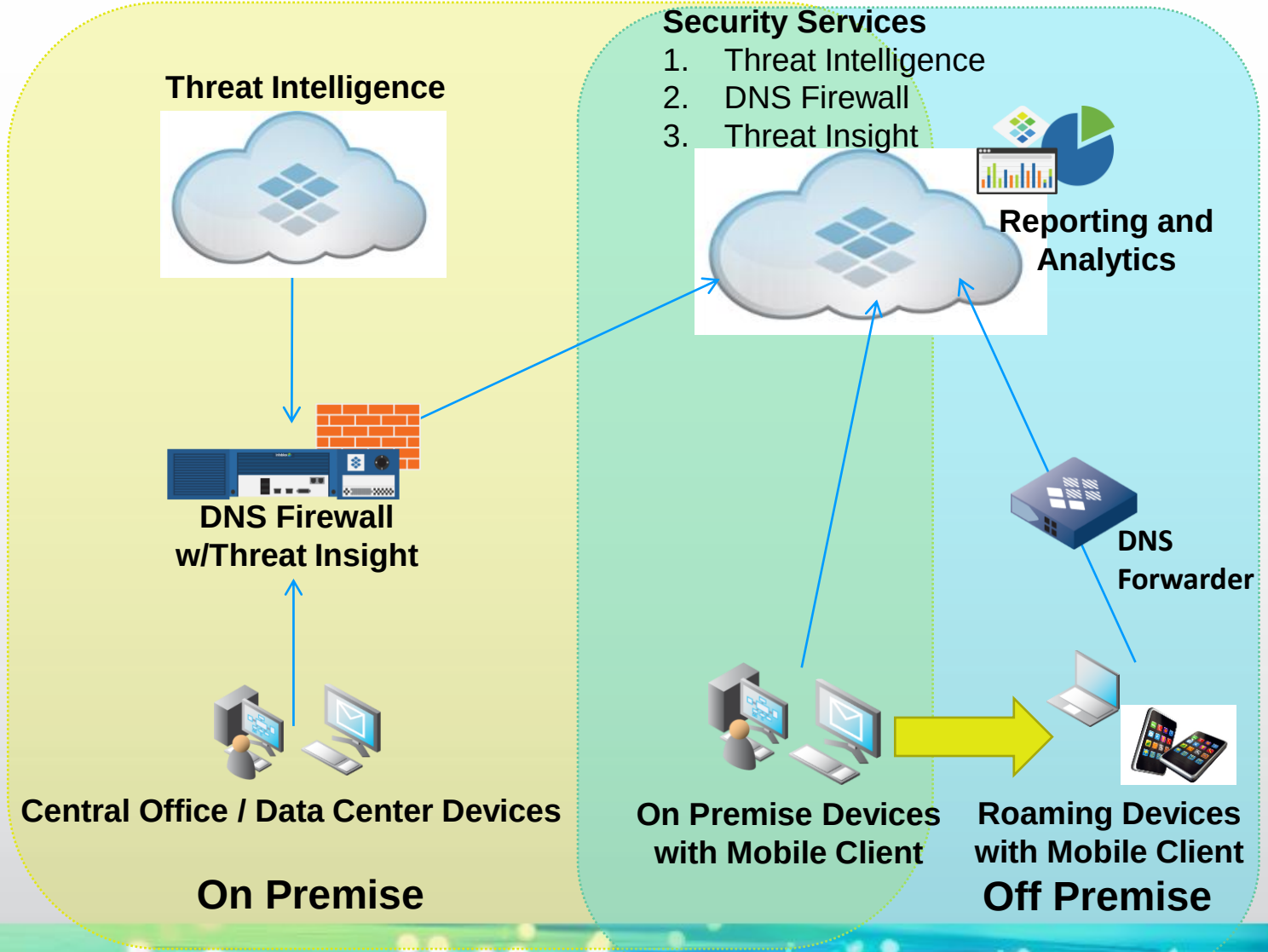
Malware & Data Exfiltration

- Malware containment and control
  - DNS Firewall: Ubiquitous visibility and blocking
  - Adding high quality Threat Intelligence
  - Offer additional 3rd party Threat data
  - Dossier: Threat intelligence research tool to accelerate incident analysis
  - Endpoint containment via ecosystem partnerships
  - Open APIs enabling 3rd party devices to block using DDI infrastructure
- Threat Insight – Streaming analytics
  - Data Exfiltration detection and prevention
  - Blocks known and custom exfiltration tools



Extending Protection Outside the Enterprise

DNS Firewall as-a-service



DNS Firewall

- Deploy on premise, private/public cloud, Internet

Unified Reporting and Analytics

- Unified view for on and off-premise users and devices for internal and external applications
- Pinpoint exact device, switch and port for malware
- 10+ ecosystem integrations with leading security vendors

Threat Intelligence

- Leverage investment across all deployments

Advanced Threat Analytics

- Data exfiltration prevention
- Malware containment and control

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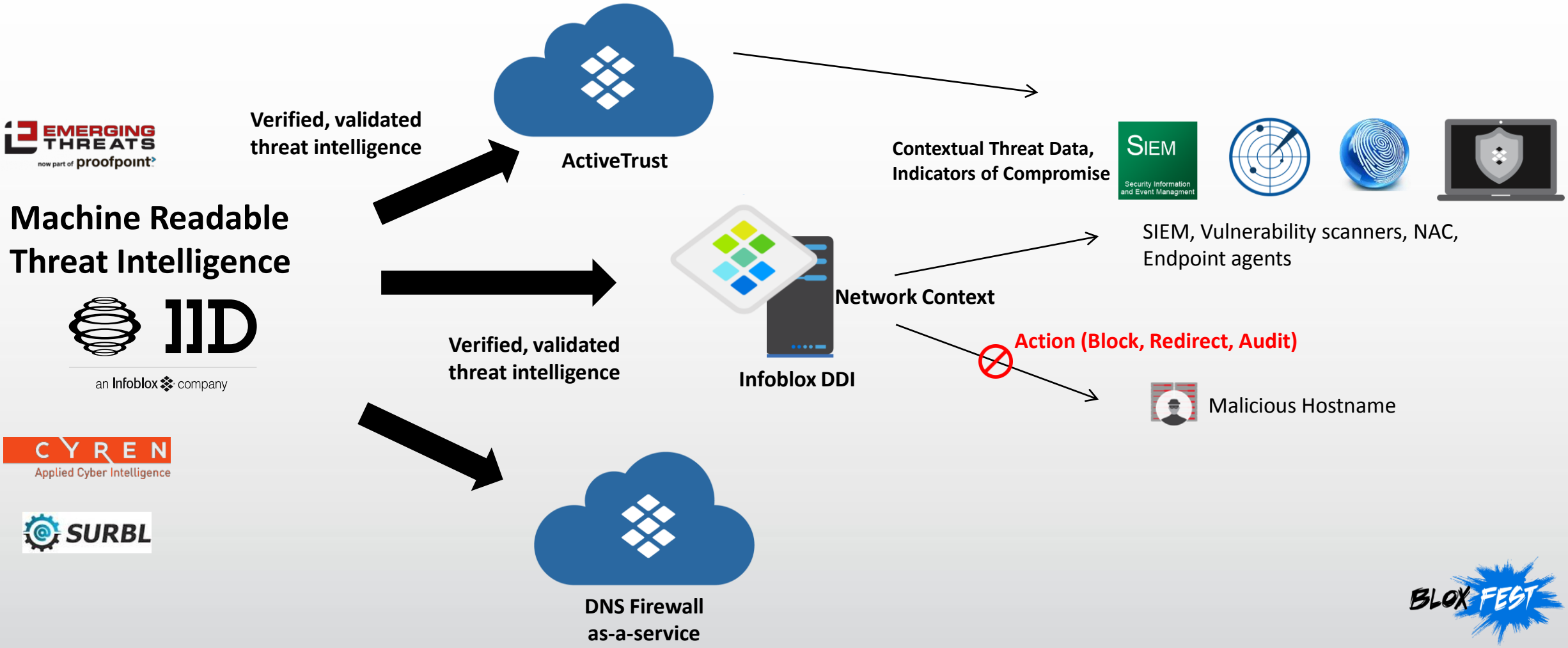
Threat Intel Data Exchange - Ecosystem



Context Driven Threat Intelligence Driving Operational Efficiency

Network Context and Control

Infoblox CONTROL YOUR NETWORK

- Ubiquitous Tier-1 network control points
- Unique network position to provide device information and metadata
- DNS audit trail of system and user activity

Collective Threat Intelligence

IID

- Verified and accurate MRTI
- Distills data from thousands of sources, processes and services that IID offers
- Federated platform for threat data sharing

Context-Aware Security

- **Prioritize** response to threats based on enterprise context and risk
- **Protect** by instantly blocking malicious activity on both on-premise and off-premise devices; share threat data with ecosystem for additional action
- **Predict** threats using ecosystem, vertical and geo data

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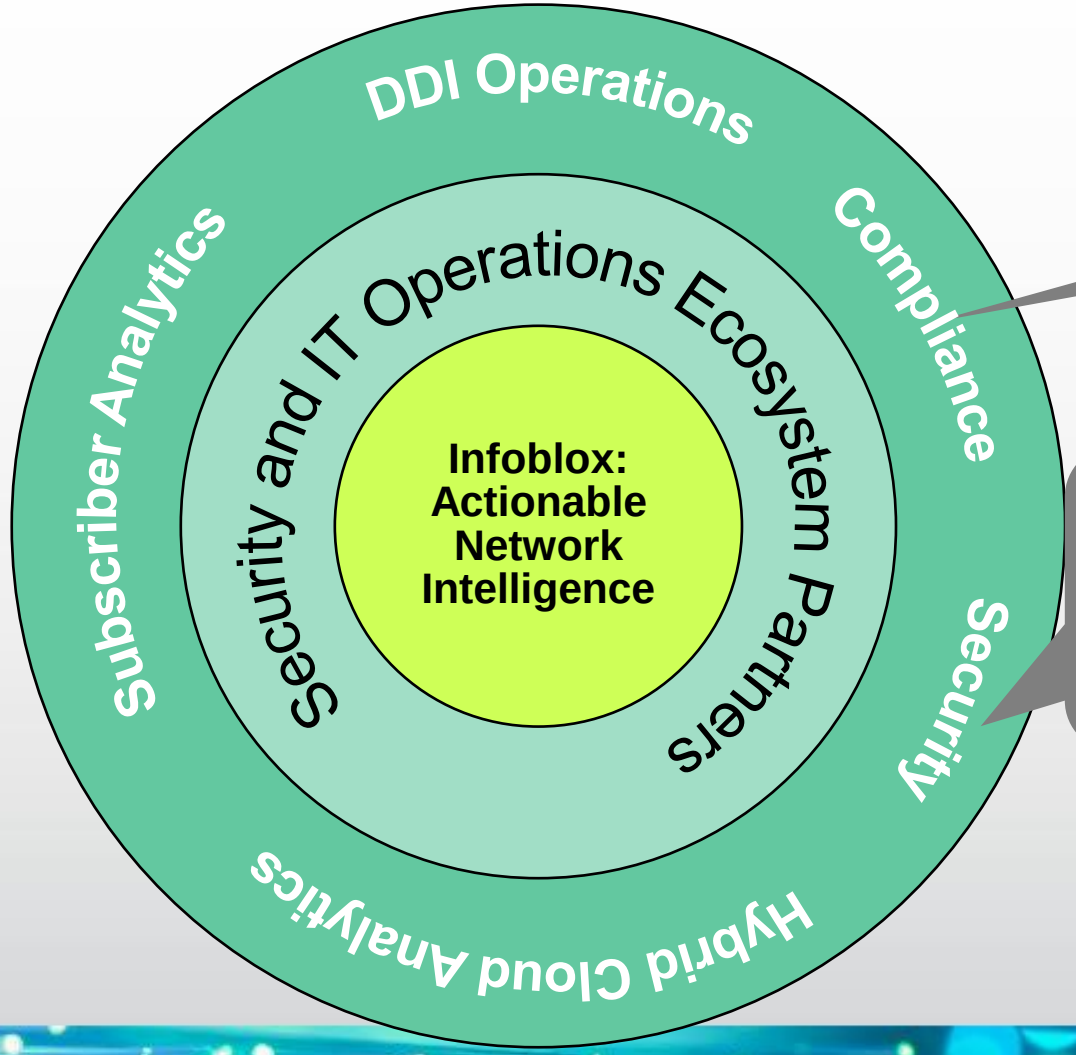
Security Analytics Strategy

Leveraging Threat Intelligence, DDI and 3rd party data to provide

- New and Deeper insights into threats
- Automation of analysis and compliance to save time and accelerate response



What's on my network?
Are devices compliant to policy?
Are admins compliant to policy?

Which devices are infected & how?
How do I prioritize security events and eval risk?
How do I auto-gather data to do incident response?

DDI & DNS Security: A Control & Data Plane for Security Deployments

DNS Security

Breaking the malware control plane

DDI Data

Security Operations Efficiency

Ecosystem & Data Exchange

Real time Threat Intelligence exchange between diverse security platforms

Enforcement & Mitigation

Pervasive mitigation and enforcement

Infoblox Data: Relevance to Security

A DHCP assignment signals the insertion of a device on to the network

- Includes context: Device info, MAC, lease history
- DHCP is an audit trail of devices on the network

IPAM

Fixed IP addresses are typically assigned to <u>important</u> devices:

- Data center servers, network devices, etc.
- IPAM provides “metadata” (additional business context) via EAs: Owner, app, security level, location, ticket number
- *And the business importance of the asset determines level of risk!*

DNS is the first step in almost every activity, good or bad.

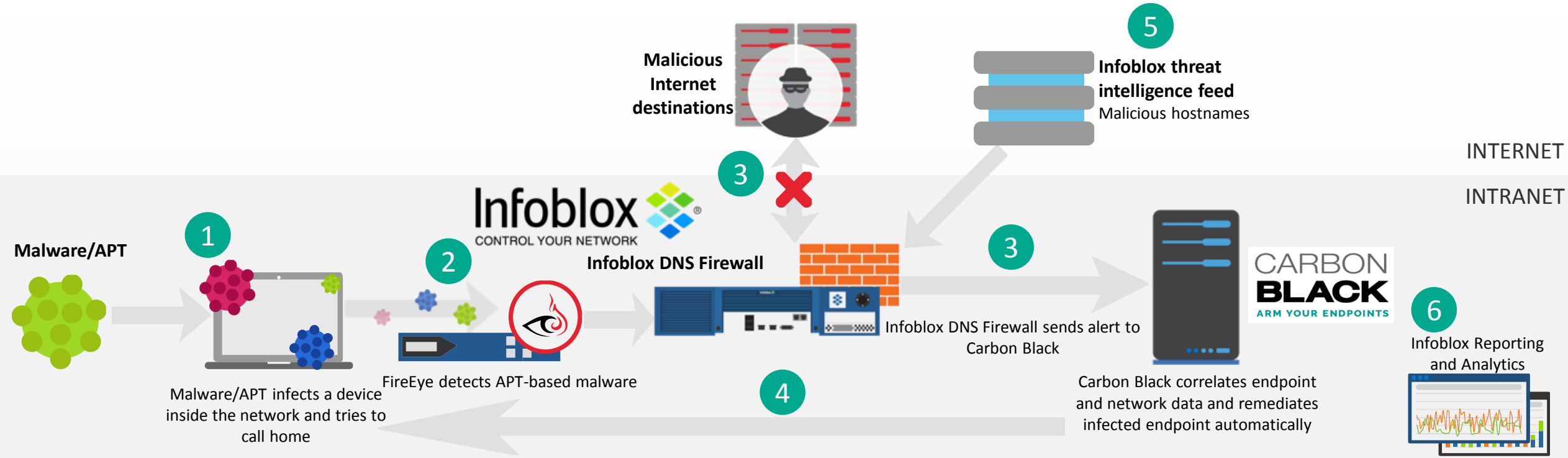
DNS query data provides a “client-centric” record of activity

- Includes internal activity *inside the security perimeter*
- Includes BYOD and IoT devices
- This provides an excellent basis to profile device & user activity

Security Relevant Data and Context Using Network Infrastructure

Breaking the Security Silo

Infoblox, FireEye and Carbon Black



1 An infected device brought into the office.

2 FireEye detects the APT-based malware communication to malicious domain destination, and shares this information with DNS Firewall.

3 Infoblox DNS Firewall blocks endpoint DNS query and sends alert to Carbon Black.

4 Carbon Black correlates its own endpoint data and network data from Infoblox and remediates infected endpoint.

5 An update will occur every 2 hours (or more often for significant threat).

6 **Pinpoint.** Infoblox Reporting and Analytics lists DNS Firewall action as well as the:

- User name
- Device IP address
- Device MAC address
- Device type (DHCP fingerprint)
- Device host name
- Device lease history

Summary

- Infoblox is committed to provide best in class security to both protect DNS and break the malware control plane.
- Infoblox DDI platforms as the control and data plane for network security
  - Busting the silo’s through open API integration
  - A platform for real time data exchange and Threat Intelligence
  - Leveraging the inherently valuable DDI data to improve security operations and efficiency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