



QUALYS SECURITY CONFERENCE 2019

# Vulnerability Management Detection & Response (VMDR)

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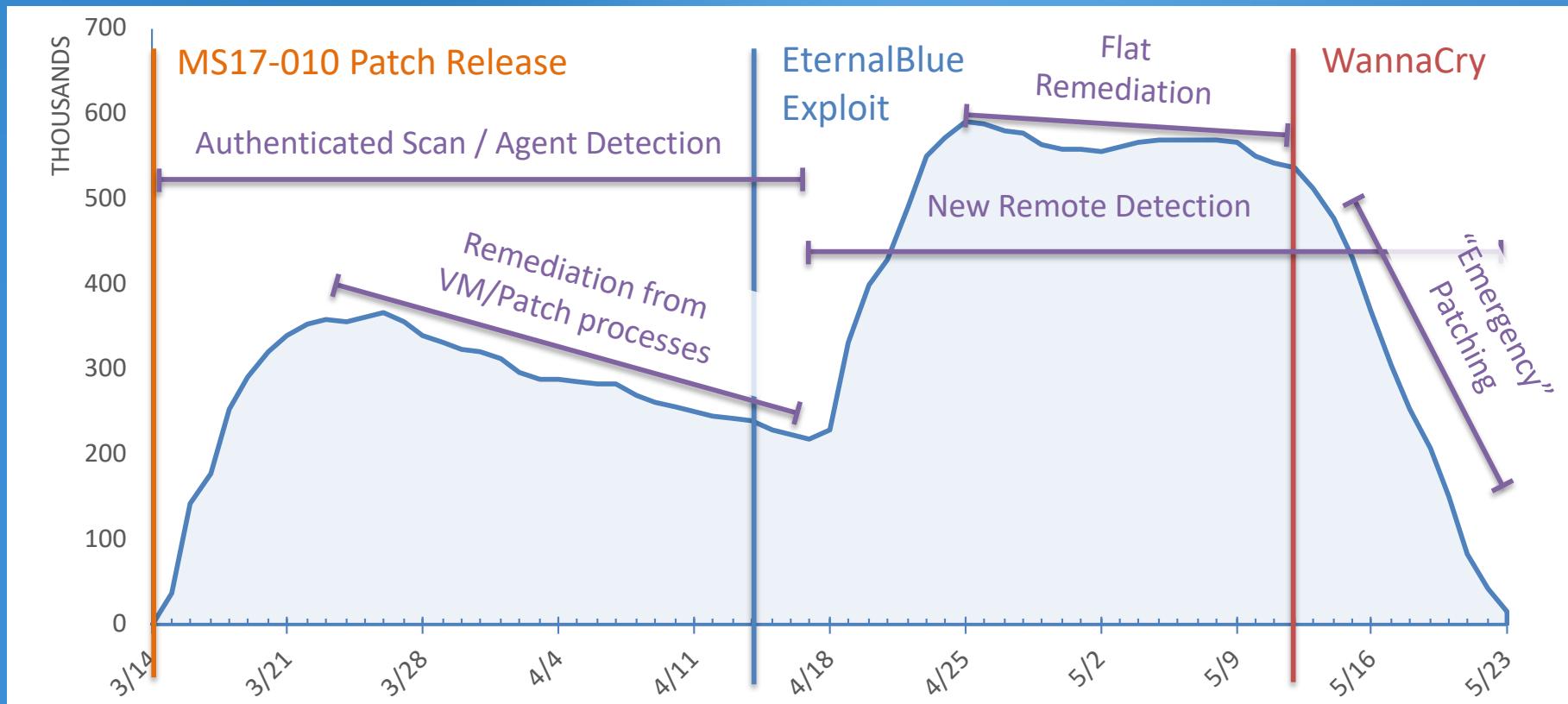
VP Strategy, Qualys, Inc.

# Vulnerability Management Lifecycle





# WannaCry Timeline and Remediation



Introducing  Qualys.

# VMDR

Vulnerability Management, Detection and Response

One solution to Discover, Assess, Prioritize and Patch critical vulnerabilities



## Asset Discovery

Detect known and unknown assets

Workflow to add an unmanaged asset as a managed asset

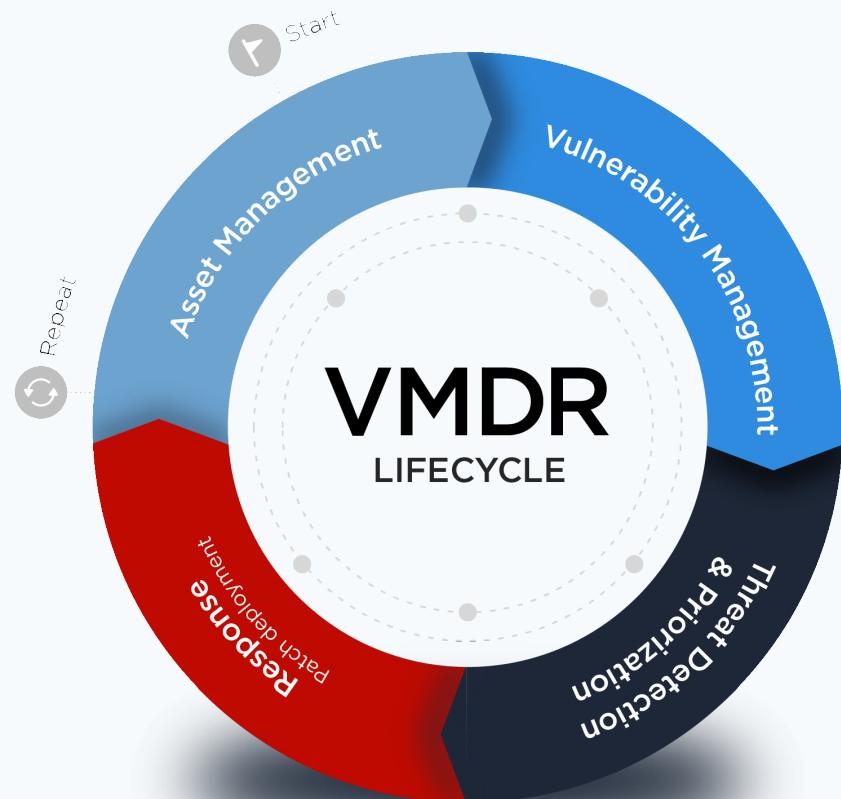
## Asset Inventory

Hardware, operating system, and application inventory for all assets

## Asset Normalization and Categorization

Normalize Inventory data by common attributes

Categorize by vendor, version, type

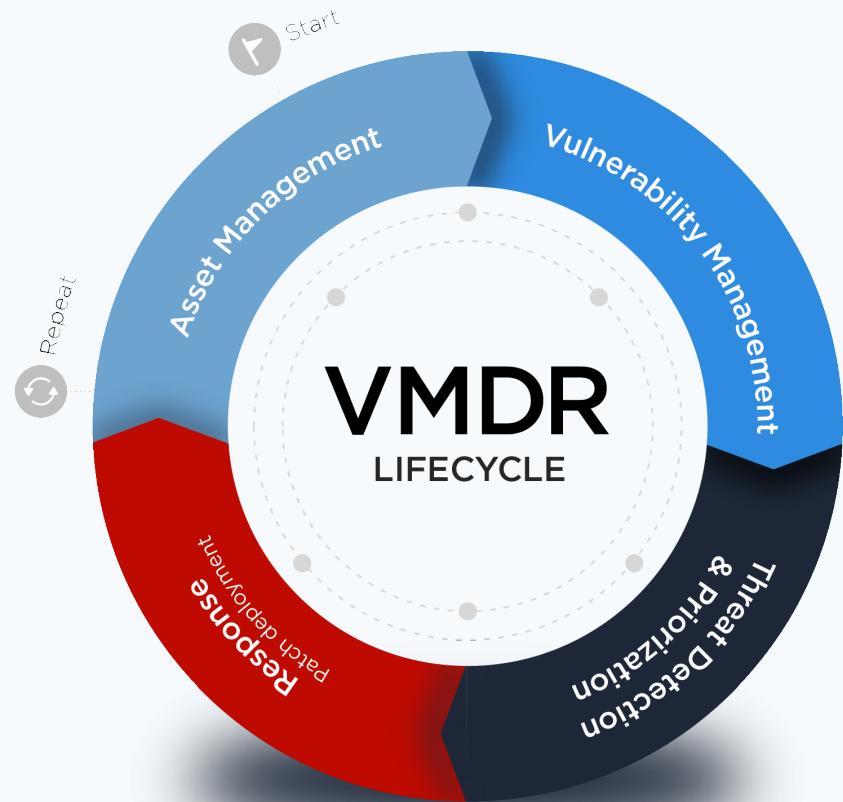


## Vulnerability Management

Detect vulnerabilities by QID  
CVE-to-QID mapping  
CVSSv2 and CVSSv3 base scores

## Security Configuration Assessment

CIS Benchmarks  
Security-related misconfigurations

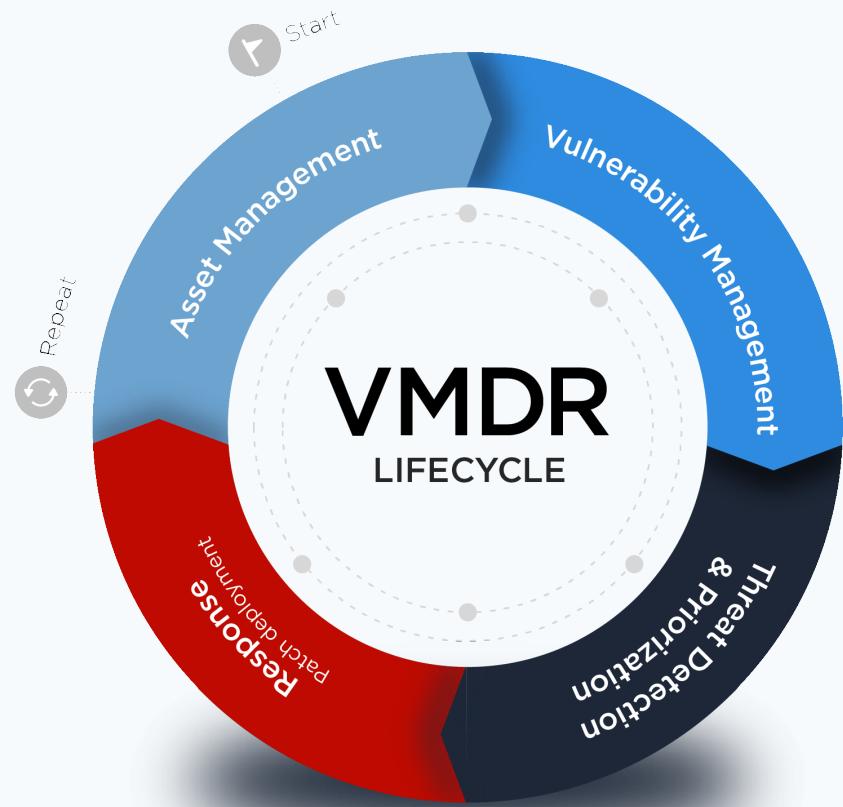


## Prioritization

- Using real-time threat intelligence
- Real-world exploits
- Proof of Concepts
- Exploit categorization
- Exploit severity

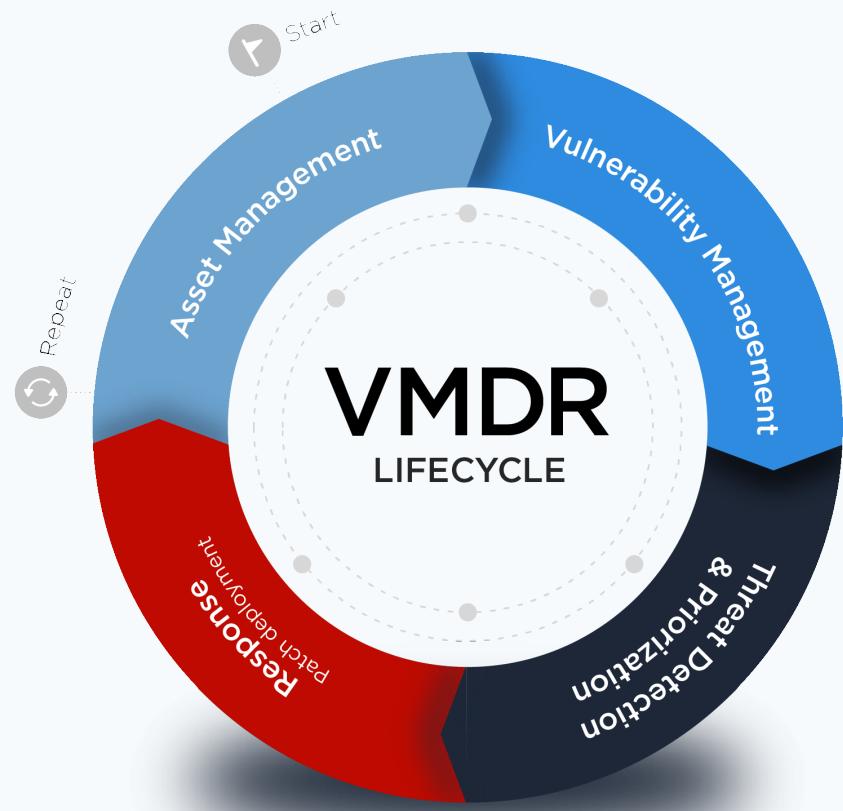
## Machine Learning

## Contextual Awareness

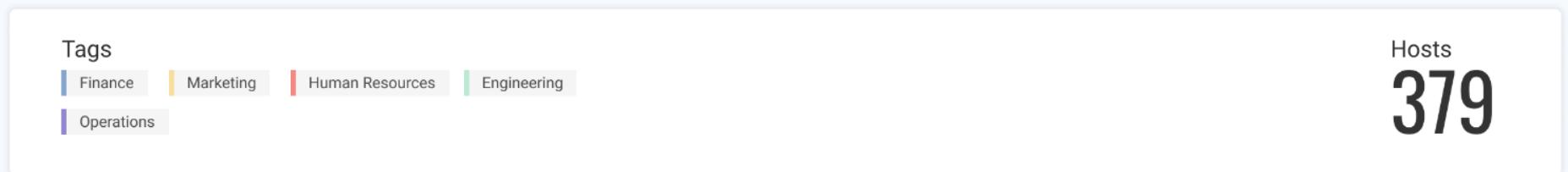


## Remediation

- Automatically correlate vulnerabilities to patches
- End-to-end User Interface workflows
- Fit-for-purpose visualizations and recommendations
- Orchestration for remediation



## ASSETS



## VULNERABILITIES



## Qualys Threat Prioritization

12  Zero Day

10  High External Malware

12  Active Attacks

10  High Data Loss

# Prioritization Engine – Machine Learning

Multi-Layer neural network

Dataset of 120,000+ vulnerabilities

132 vulnerability features

Live exploits / POCs

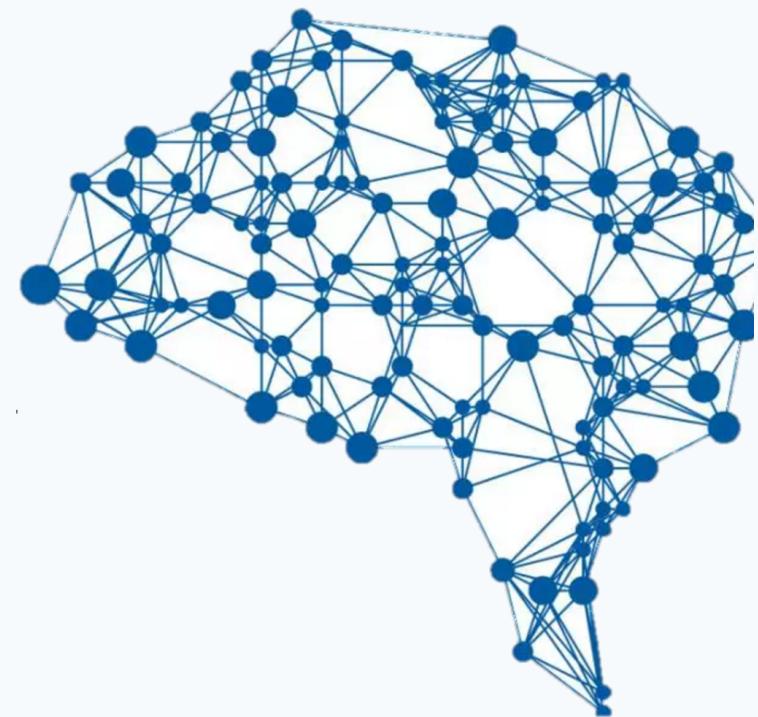
Historical threat patterns

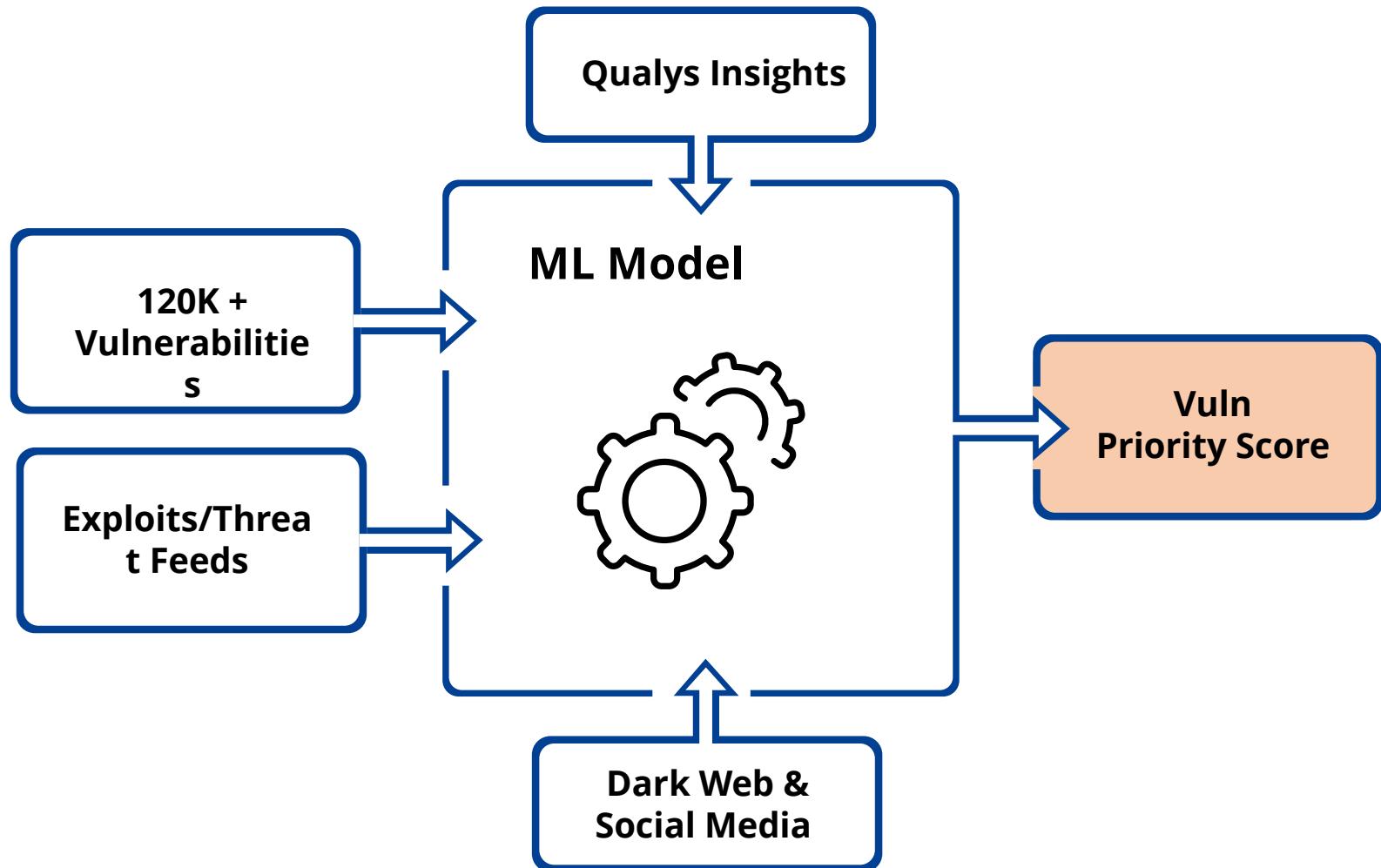
Historical vulnerable software/vendor

Dark web and social media references

Qualys security researchers

Learns new patterns and intelligence daily





# Contextual Awareness

Your Network is Unique to You

External facing assets

Network reachability / cloud security groups

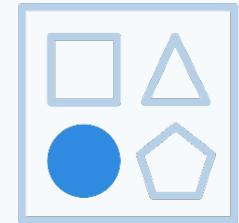
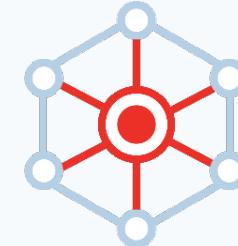
Zero-Trust Networking / BeyondCorp

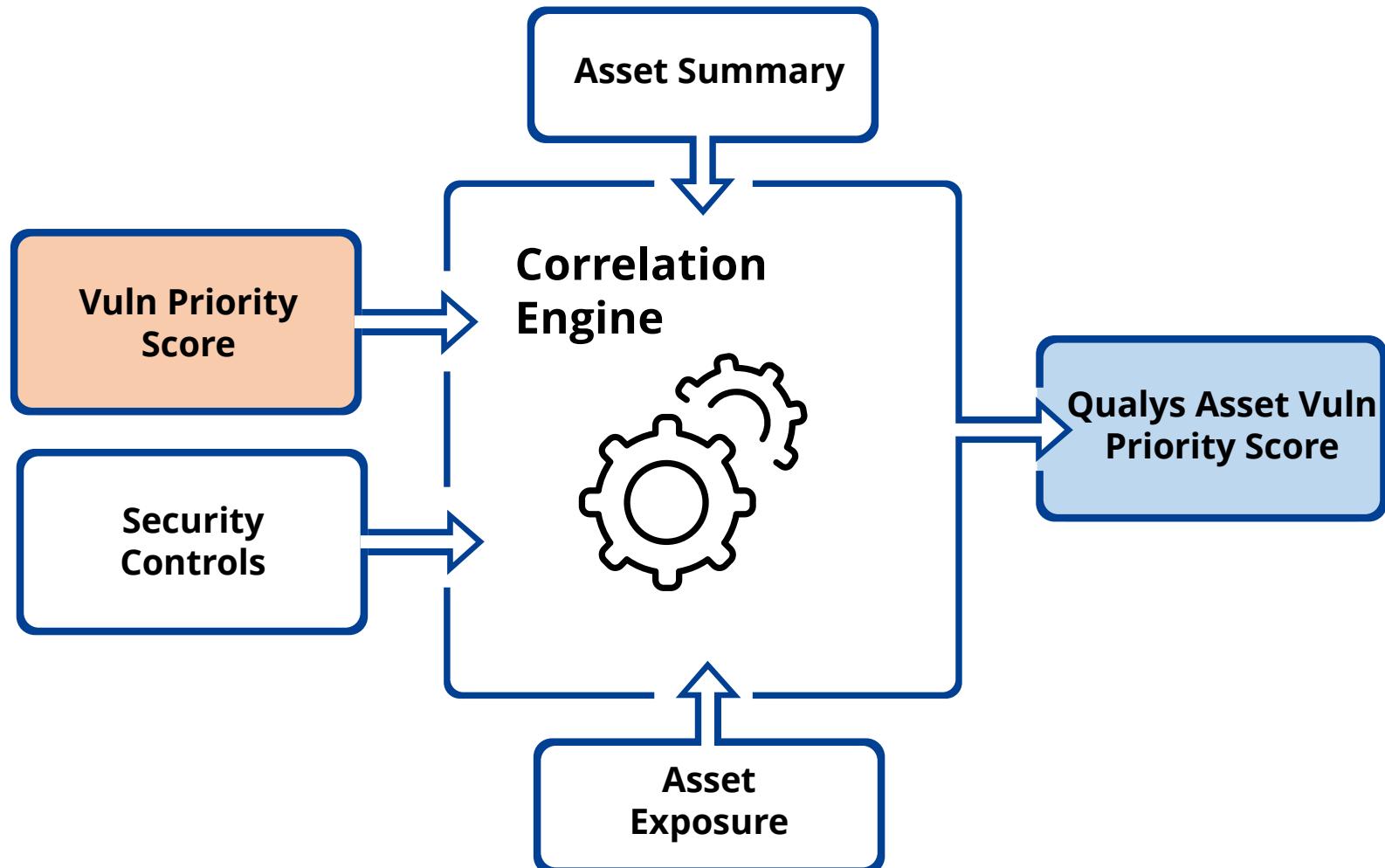
Business / customer applications

Data sensitivity and Data Access Governance

Asset system configuration

Security control validation





# VMDR Comes with Much More

Unlimited Cloud Agents

Unlimited Container Sensors

Unlimited Passive Sensors

Certificate Inventory

Cloud Inventory

Container Inventory

Mobile Device Inventory

Asset Categorization

Asset Normalization

Configuration Assessment

CIS Benchmarks

Continuous Monitoring

Patch Detection and CVE Correlation

## Available January 2020



The background features a uniform grid of small white dots on a solid blue surface. Three specific dots are highlighted with a red glow and a slight transparency, creating a focal point. One highlight is located in the lower-left quadrant, another in the center-left area, and a third in the upper-right quadrant.

# VMDR Concept Demo



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# Thank You

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