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Risk-Centric Cybersecurity Management

Goals, critical capabilities and use-cases from the real world



### **AGENDA**

Explore a real-world use case for risk-focused cybersecurity management ldentify the key goals for a cyber security risk management program Create the blue-print for risk-focused cybersecurity management program



#### **GOALS**

Communicate the benefits of a risk-focused approach to cybersecurity management Identify the capabilities required to implement a risk-based cybersecurity program Understand how to grow your cybersecurity risk management programs



## Cybersecurity Risk Management Vs.

Risk-based Cybersecurity Management



Application

Vs.

Program



## Cybersecurity Risk Management Use Case Vulnerability Management

Basic Requirements

Limitations

Risk-based Approach



## 3 Questions of Vulnerability Management Risk

Which vulnerabilities, if exploited, pose the greatest risk of disrupting critical business functions?

Which vulnerabilities, if exploited, pose the greatest risk of exposing vital or confidential data?

Which vulnerabilities stand the greatest risk of being exploited?



## Which vulnerabilities, if exploited, pose the greatest risk of disrupting critical business functions?

Business Context

CMDB	Business Hierarchy	Business Functions
Compliance Flags (PCI)	Location	Services
Operational Status (Production)	Department	Processes
Internal / External / DMZ	Business Line	Applications



## Which vulnerabilities, if exploited, pose the greatest risk of exposing vital or confidential data?

Data Context

Data Management & Protection Systems

DLP

Data Segmentation

Network Segmentation

Business Continuity / Disaster Recovery (BC/DR)

Data Lifecycle Management (DLM)



#### Which vulnerabilities stand the greatest risk of being exploited?

Threat Intelligence

Zero-day Threats

Advanced Persistent Threats

**Exploits** 



## Cybersecurity Risk Management Goals

Integrate all relevant data sources seamlessly

Allow practitioners to focus their efforts on the most critical problems

Facilitate the implementation of solutions

Improve communication within and between teams, departments and stake holders

Do this automatically and continuously



#### Manual Remediation Management

ITSM Integration

Automatic Ticket Creation
Vulnerability Consolidation
Ownership Assignment
SLA Enforcement



#### Automated Remediation Management

Orchestration

Server Automation
Endpoint Management
Patch Deployment
Patch Intelligence



#### Risk Communication

Metrics & Reporting

Security professionals - focus on actionable, imminent risks
InfoSec managers - program effectiveness and performance
InfoSec leaders - board and C-level metrics
Business users - assumed technology risks, remediation cost and effort



### Risk-based Cybersecurity Management Program Blue-print

1. Identify all technology assets (and their sources) in scope for this program

2. Identify all security monitoring and assessment systems in scope for this program

3. Identify all relevant business, technology, environmental contexts (and their sources) in scope for this program

4. Automatically integrate & correlate data from 1, 2, 3

5. Evaluate pre-defined algorithms for risk evaluation and insights



## Risk-based Cybersecurity Management Program Blue-print

- 6. Identify all processes, systems and users that can be leveraged for risk remediation
  - 7. Implement play-books and strategies for manual remediation efforts
    - 8. Orchestrate automatic risk remediation
    - 9. Inform and engage ALL relevant stakeholders



### Beyond Network Vulnerabilities

Application Security

Penetration Testing

IDS / IPS

Network Flow

Change & Configuration Management

Policy Compliance



## Parting Thoughts

Better security management is possible

Get started today!

Build it forward

Own your security

Empower your SMEs

Beware of 'Secret Sauce'



# Q&A

