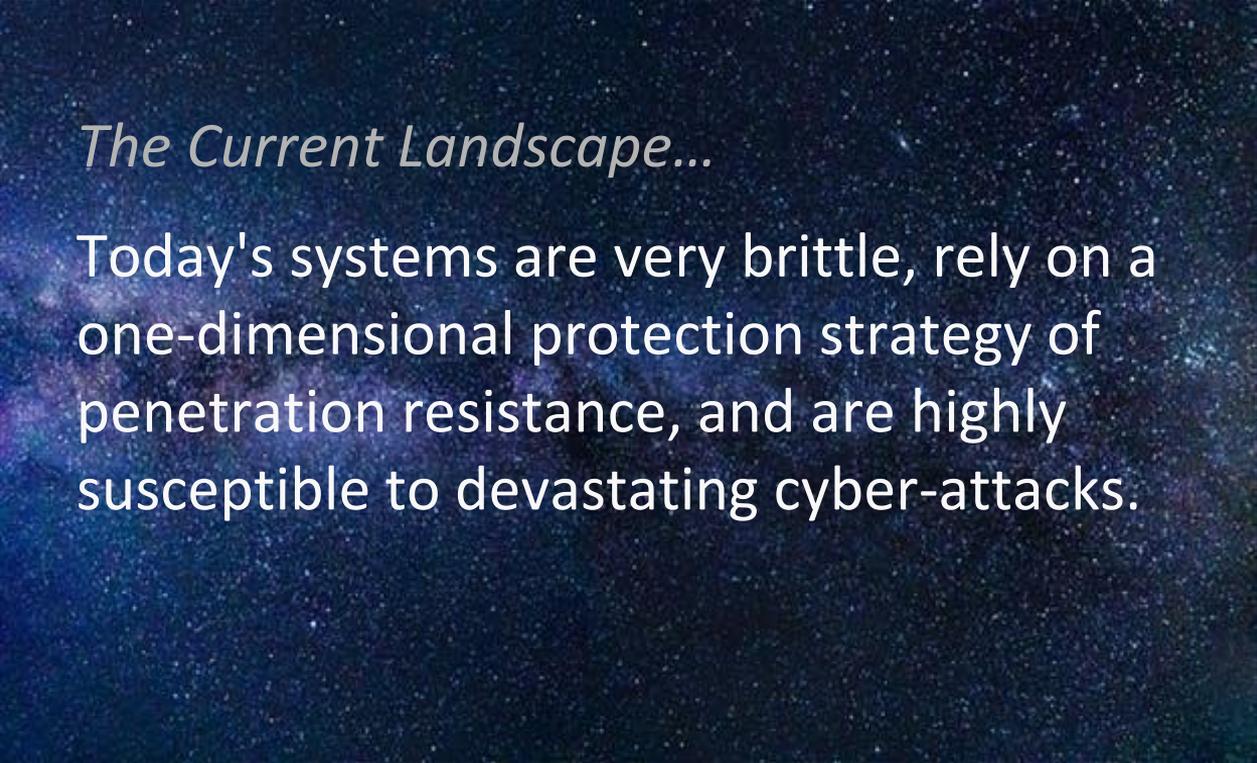# The Game Changing Benefits of DevSecOps

Moving from Static to Dynamic Security

The Current Landscape…

Today's systems are very brittle, rely on a one-dimensional protection strategy of penetration resistance, and are highly susceptible to devastating cyber-attacks.

Another Problem…

Little or no understanding of what is in the "black box."

SYSTEM STACK

Transparency
Traceability
Visibility
Assurance

APPLICATIONS
MIDDLEWARE
OPERATING SYSTEM
FIRMWARE
INTEGRATED
CIRCUITS

NETWORK

Security vulnerabilities can occur through failures in...

Requirements—

- System or component possesses all the functions and features required and still contains vulnerabilities that make it unsuitable or ineffective with respect to security.

Development—

- System or component does not meet its specifications and/or vulnerabilities exist as a result of poor development standards or incorrect design choices.
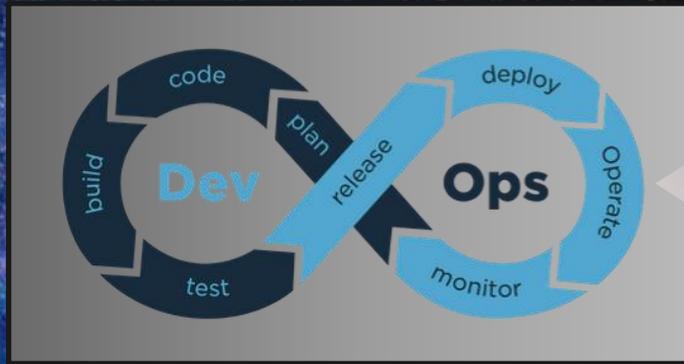
Operation—

- System or component has been constructed correctly to a correct specification, but vulnerabilities exist as a result of inadequate controls during operation.

Source: ISO/IEC 15408

DevSecOps Fundamentals…

- Security integration throughout the system life cycle
- Disciplined and structured software and system development processes with security inheritance
- System and component development at the speed of industry
- Trusted development environments and developers
- Continuous integration and deployment
- Continuous monitoring and ATOs

Next Generation Development Processes

Credit: Network Intelligence

DevSecOps

AGILE DEVELOPMENT
SECURE ARCHITECTURE
APPLICATION SECURITY
CODE REVIEW/TESTING
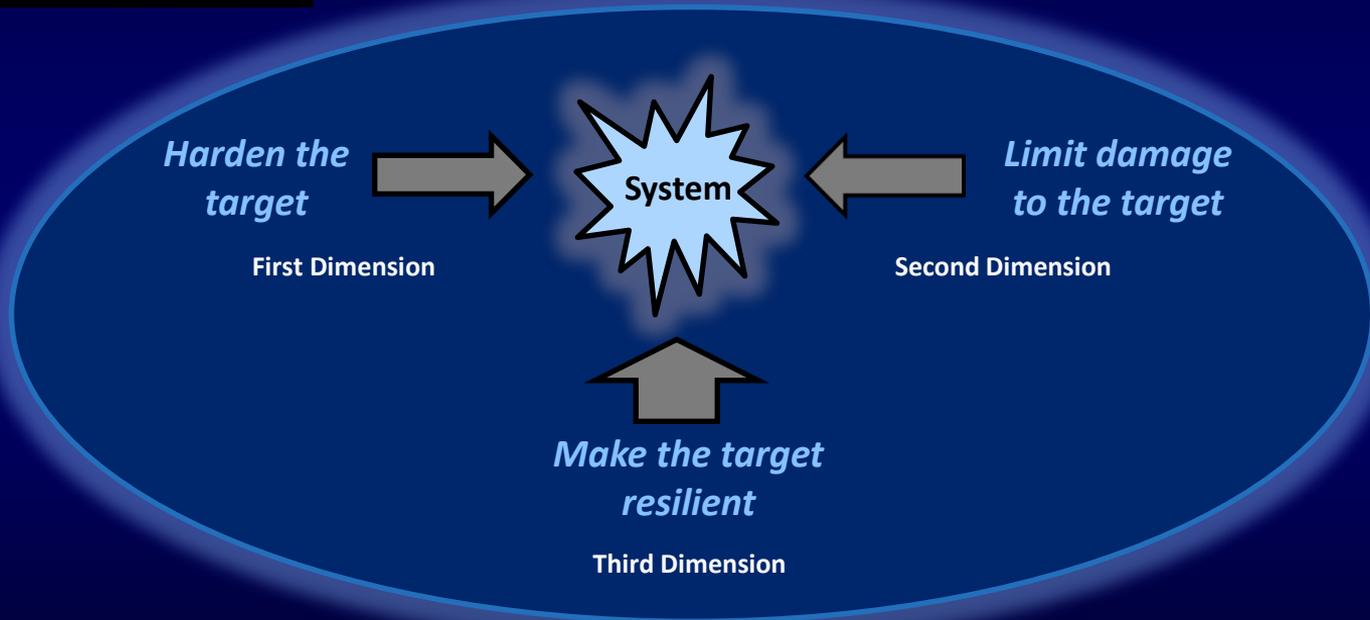**SECURE CONFIGURATION**
SECURE OPERATIONS

Security Integration

Transparency
Traceability
Visibility
Assurance

Reducing susceptibility to *cyber threats* requires a multidimensional strategy.

Harden the target

First Dimension

System

Limit damage to the target

Second Dimension

Make the target resilient

Third Dimension

Damage Limitation and Cyber Resiliency

In Time—
- Virtualization and micro virtualization
- Limits "time on target" for adversaries

In Space—
- Zero trust architectures
- Domain separation
- Network segmentation / micro segmentation
- Impedes "lateral movement" of adversaries

DevSecOps is the future...

Simplify. Innovate. Automate.