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.”
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

Transparency
Traceability
Visibility
Assurance
Reducing susceptibility to *cyber threats* requires a multidimensional strategy.

- **Harden the target**
  - **First Dimension**
- **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...