




# Protecting the Nation's Critical Information

## One Team, One Mission



**NIST**

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY



# Defending cyberspace in 2018 and beyond.

# Cyber Risk.

**Function** (threat, vulnerability, impact, likelihood)

Energy



Transportation



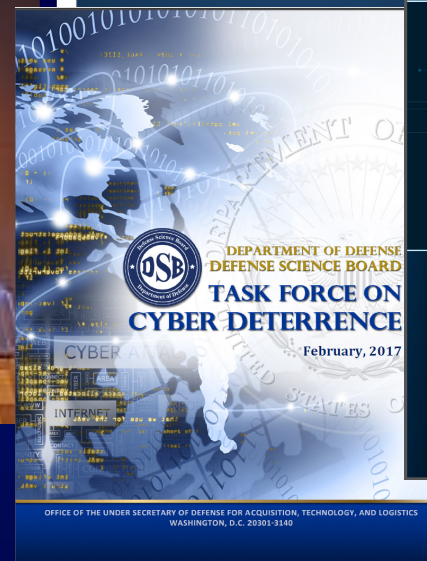
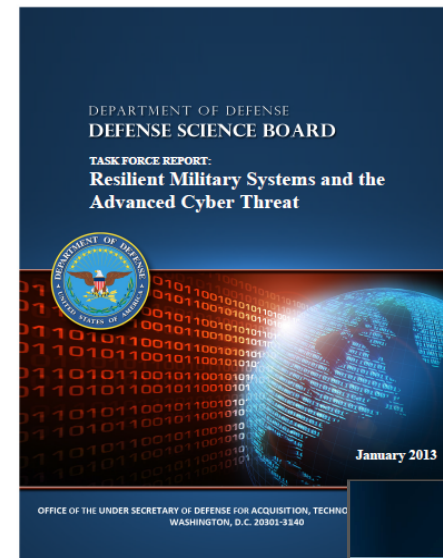
Manufacturing



Defense



- Resilient Military Systems and the Advanced Cyber Threat
  - Cyber Supply Chain
  - Cyber Deterrence



## Defense Science Board Reports

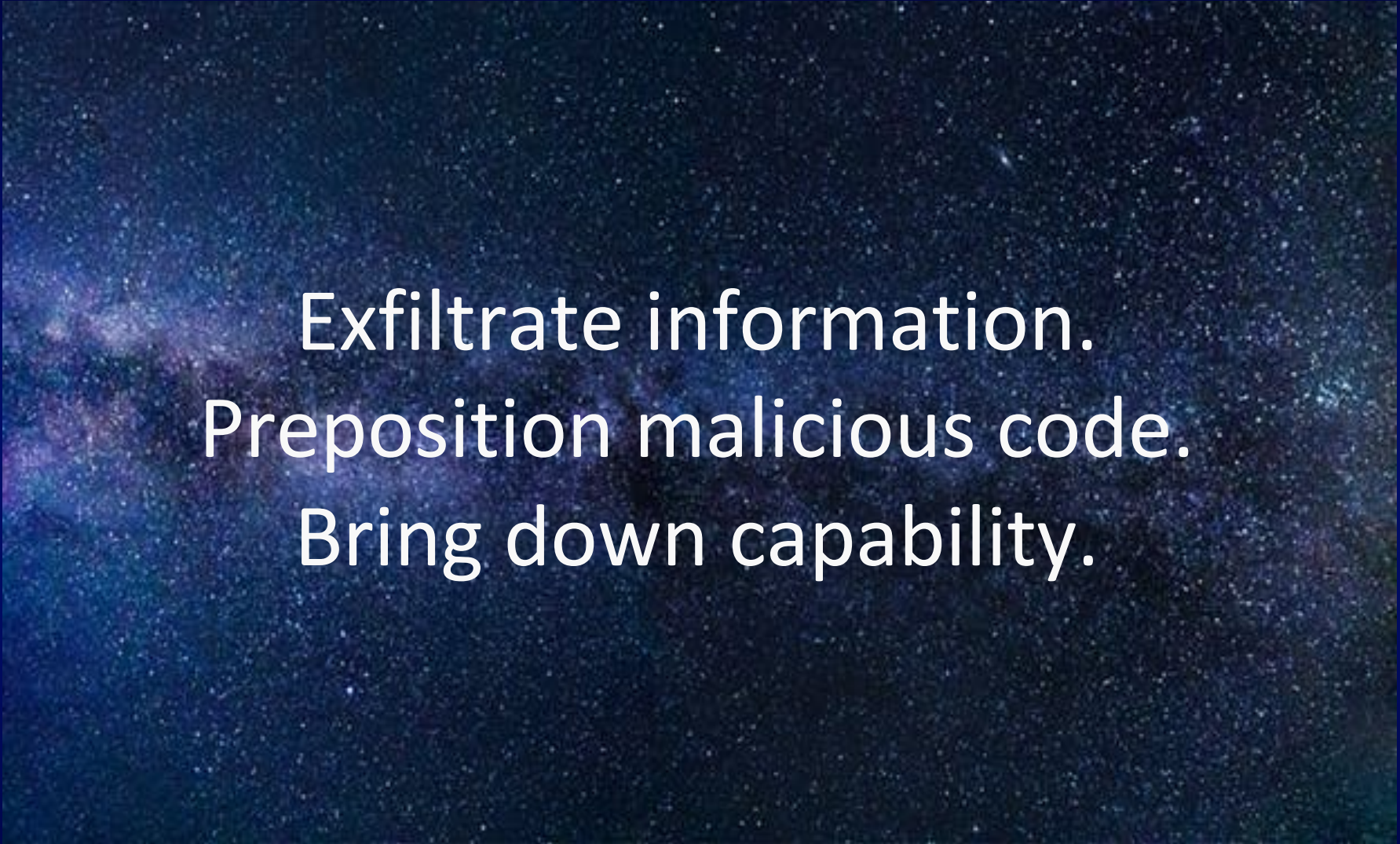
# Complexity.



# Attack surface.



The adversaries are relentless.



Exfiltrate information.  
Preposition malicious code.  
Bring down capability.



Economic security.  
National security.



Protecting critical systems and assets—  
*The highest priority for the national and economic  
security interests of the United States.*



A night sky photograph showing the Milky Way galaxy in a dark blue hue, arching across the upper portion of the frame. Below the galaxy, a range of dark mountains is visible, with some peaks illuminated by a soft, yellowish glow. In the foreground, a valley is filled with dark silhouettes of trees and buildings, with some lights visible in the distance. The overall scene is a serene night landscape.


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Kinetic space.  
Cyber space.



2015



OPM.  
Anthem Blue Cross Blue Shield.  
Ashley Madison.



2016



F-35 design documents.



2017





143,000,000



Equifax.



2018



Navy's advanced submarine  
technology.

# Big Data.



Information has value.

A night sky photograph showing the Milky Way galaxy in a dark blue hue, arching across the upper two-thirds of the frame. Below the galaxy, a range of dark mountains is silhouetted against a sky with some light-colored clouds. In the lower right, a cluster of city lights is visible. The number '66,000' is centered in the sky in a large, white, sans-serif font.

66,000



800,000





110



# Requirements and controls.



Blocking and tackling.





**Government**



**Academia**

One team, one mission.



**Industry**

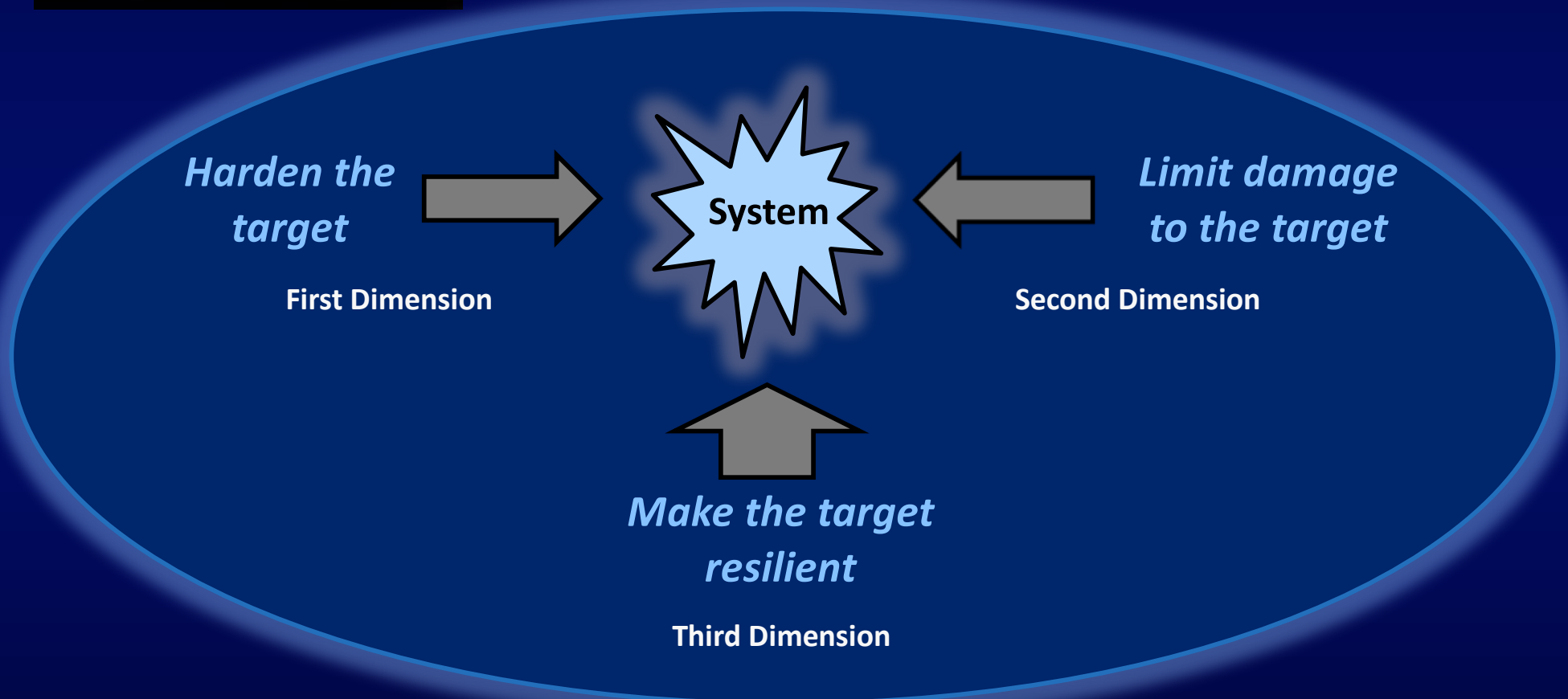




Effectiveness.



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



Transparency.

Traceability.

Trust.





Some final thoughts.

Simplify. Innovate. Automate.





*Institutionalize.*



*Operationalize.*

The  
ultimate  
objective for  
security and  
privacy.



Leadership.  
Governance.  
Accountability.

Security. Privacy. Freedom.





## *CONTROLLED UNCLASSIFIED INFORMATION PROJECT*

SIMPLIFY. INNOVATE. AUTOMATE.

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### **Comments**

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