

# DoD Microelectronics Overview

## ANSI Workshop on Global Supply Chain Security for Microelectronics Standardization

*Dr. Dev Shenoy,  
Principal Director for Microelectronics,  
Director, Defense Microelectronics Cross Functional Team  
OUSD (R&E) - Critical Technologies*



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# Microelectronics a “must-win” technology for DoD

“Semiconductors are essential to national security. . . . They are fundamental to the operation of virtually every military system, including communications and navigations systems and complex weapons systems such as those found in the F-35 Joint Strike Fighter.”

“Semiconductors are key to the “must-win” technologies of the future, including artificial intelligence and 5G, which will be essential to achieving the goal of a “dynamic, inclusive and innovative national economy” identified as a critical American advantage in the March 2021 Interim National Security Strategic Guidance.

“Building enduring advantages . . . getting the technology we need more quickly, and making investments in the extraordinary people of the Department, who remain our most valuable resource.”

**BUILDING RESILIENT SUPPLY CHAINS, REVITALIZING AMERICAN MANUFACTURING, AND FOSTERING BROAD-BASED GROWTH**

100-Day Reviews under Executive Order 14017

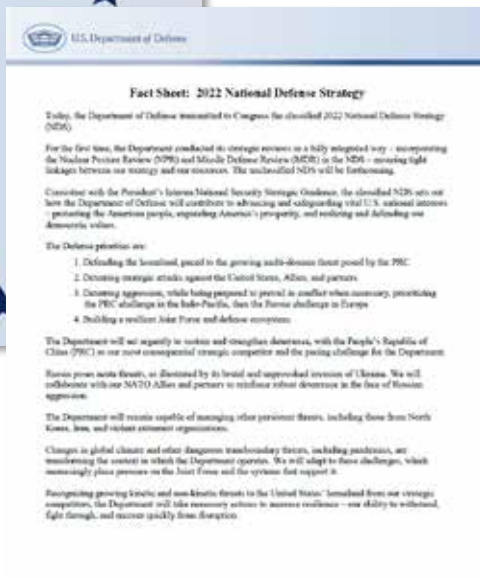
June 2021

A Report by The White House

Building Resilient Supply Chains  
Revitalizing American Manufacturing  
Fostering Broad-Based Growth

**INTERIM NATIONAL SECURITY STRATEGIC GUIDANCE**

MARCH 2021



# DoD Microelectronics Vision

## Vision Statement:

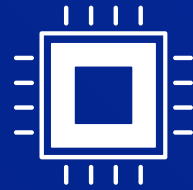
Guaranteed, long-term Access  
to Measurably Secure  
Microelectronics

enabling Overmatch Performance

and increasing Military  
Operational Availability and  
Warfighter Combat Readiness



Ensure timely access to measurably secure and affordable ME technology



Motivate programs and their primes to modernize and exploit the most capable ME



Leverage tools, policies and enforcement to reduce or eliminate costly sustainment issues



Centralize knowledge in a DoD "front door" organization to augment decentralized execution



Increase ME discovery and innovation, and accelerate transition into DoD systems



Contribute to and influence interagency and national efforts to grow ME capabilities to meet national security needs



Cultivate a right-sized workforce with the right skills at the right place and the right time



# Microelectronics Supply Chain Visibility



## Securing Defense-Critical Supply Chains

An action plan developed in response to President Biden's Executive Order 14017

February 2022



“Supply Chain Visibility: DoD is still building visibility into the sub-tiers of the microelectronics supply chain; until there is greater visibility, it will be difficult to identify certain supply chain threats, vulnerabilities, and risks. Visibility is further eroded by system-level (next-level assembly comprised of multiple microelectronics components) manufacturers who simply seek the lowest cost producers and are source agnostic.”



# Market for Secure Microelectronics: National & Economic Infrastructure

<p><b>AI &amp; Supercomputers</b> <b>DOE, NASA</b></p>	<p><b>Banking, Medical and Other Sensitive Verticals</b> <b>DHHS, FDIC, OSHRC</b></p>	<p><b>Cyber Security</b> <b>DHS</b></p>	<p><b>Dept. &amp; Agency Data Centers</b> <b>ODNI</b></p>
<p><b>Energy Infrastructure</b> <b>National Grid</b> <b>DOE, NRC</b></p>	<p><b>Next-Gen Comms</b> <b>DHS</b></p>	<p><b>Transportation</b> <b>DOT, NTSB, FAA</b></p>	<p><b>Weapons Systems</b> <b>DOD ≈1% of demand</b></p>
<p><b>Aggregated Market is ≈24% of U.S. Demand</b></p>			

Access to Measurably Secure ME will serve this critical infrastructure market

- § Domestically designed, manufactured, packaged and tested parts that meet U.S. security and safety standards
- § Ensure access to a forecasted aggregated demand of SOTP and Legacy Technologies (designs remain robust over a 10+ year PoP)

*A "whole of nation" approach to access Measurably Secure ME*