



# CYBERSPACE WORKFORCE

## Department of Defense Cyber Workforce Framework Overview

March 2016





# Notional Representation



## Cyber Workforce

*Size not to scale*

Cyber IT  
Workforce

Cybersecurity  
Workforce

Cyber  
Effects  
Workforce

Intelligence  
Workforce  
(Cyber)

Intelligence  
Workforce

Cyber  
Mission  
Force



# Identifying the Cyber Workforce



- Based on National Initiative for Cybersecurity Education (NICE) workforce framework
- Leverage and integrate content from the Joint Cyber Training and Certification Standards (JCT&CS)
- Create a standard lexicon of cyber work roles



CYBERSECURITY  
**WORKFORCE**  
FRAMEWORK



# Common Understanding

## Work Role.

A specialized set of tasks/functions requiring specific knowledge, skills & abilities.

## Job/Position.

One or more work roles one regularly performs for pay.

## Job Title.

A description of ones job/position in the organization.

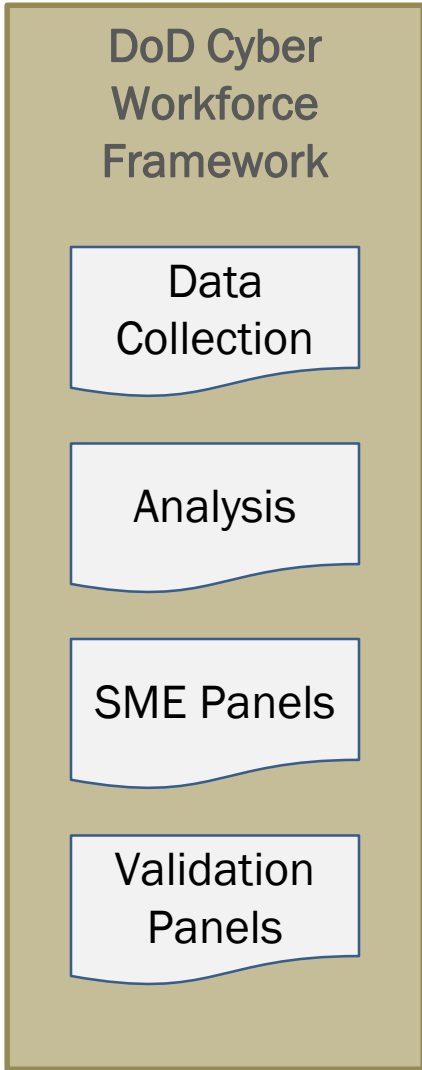


# Shaping the National Cyber Workforce



Interviews

-Pilot -  
Proof of Concept





# Work Role Examples

## Securely Provision

**Risk Management**

- Authorizing Official
- Security Control Assessor

**Architecture**

- Enterprise Architect
- Security Architect

**Software Development**

- Software Developer
- Secure Software Assessor

**Systems Development**

- Systems Developer
- Information Systems Security Developer

**Test and Evaluation**

- Test and Evaluation Specialist

**Technology R&D**

- Research & Development Specialist

**Systems Requirements Planning**

- Systems Requirements Planner



# Current & Planned Cyber Workforce Issuances

## DoD Cyberspace Workforce Strategy

DoD Directive 8140.01  
Cyberspace Workforce Management

Planned - DoD Instruction 8140  
Cyber Workforce  
Identification, Tracking & Report Requirements

DoD Cyber Workforce Framework  
(Lexicon of Cyber Work Roles)

Planned - DoD Manual(s) - Cyber Workforce Qualification Requirements

### Conceptual Qualification Methodology

Education

Training

Residency

Credentials\*

Continuous  
Development

O-J-T

Supervisor  
Evaluation

Certifications\*

Knowledge,  
Exercises, Skills Labs

Performance-based Assessments\*

NOTE:  
**DoD 8570.01-m**  
**is still in effect**  
until such time  
as it is replaced



# Questions?





# Cyber Workforce Overview

## ✓ DoD CYBERSPACE WORKFORCE STRATEGY

✓ **DoDD 8140.01 – Cyberspace Workforce Management**  
*Governance, Definitions, Stakeholder Identification*



✓ DoD 8570.01-M Admin Update

✓ DoD CIO Memo:  
DoD 8570.01-M remains in effect until replaced

□ DoDI 8140.01 -  
Identification, Tracking and  
Reporting

□ DoDM 8140.aa  
Qualification Requirements

### DoD CYBERSPACE WORKFORCE FRAMEWORK

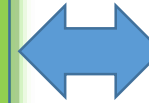
✓ **PHASE I**  
Validation &  
Shaping  
*Establish Baseline*



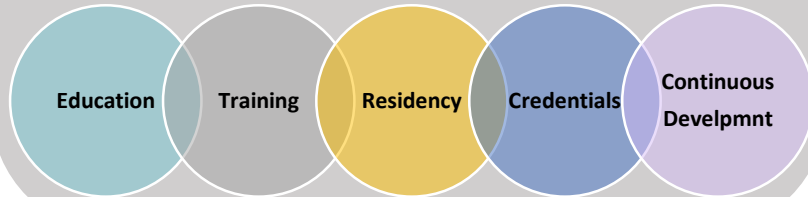
□ **PHASE II**  
Criticality  
Analysis  
*Core Tasks & KSAs*



✓ **PHASE III**  
Proficiency  
Analysis  
*Foundational,  
Journeyman, Mastery*



*Position and Personnel  
Identification*



### NATIONAL/FEDERAL

1. Nat'l Cyber Workforce Framework
2. Position Description Tool
3. Career Progression



# Definitions

## Cyberspace Workforce

Personnel who build, secure, operate, defend, and protect DoD and U.S. cyberspace resources; conduct related intelligence activities; enable future operations; and project power in or through cyberspace. It is comprised of personnel assigned to the areas of cyberspace effects, cybersecurity, cyberspace IT, and portions of the Intelligence workforce

– (DoDD 8140.01 signed 11 Aug 2015)



# Definitions

## Cyber Workforce Skill Categories

**Cyberspace IT Workforce:** Personnel, who design, build, configure, operate, and maintain IT, networks, and capabilities. This includes actions to prioritize portfolio investments; architect, engineer, acquire, implement, evaluate, and dispose of IT as well as information resource management; and the management, storage, transmission, and display of data and information.

- (DoDD 8140.01 signed 11 Aug 2015)

**Cybersecurity Workforce:** Personnel who secure, defend, and preserve data, networks, net-centric capabilities, and other designated systems by ensuring appropriate security controls and measures are in place, and taking internal defense actions. This includes access to system controls, monitoring, administration, and integration of cybersecurity into all aspects of engineering and acquisition of cyberspace capabilities. - (DoDD 8140.01 signed 11 Aug 2015)

**Cyberspace Effects Workforce:** Personnel who plan, support, and execute cyberspace capabilities where the primary purpose is to externally defend or conduct force projection in or through cyberspace. - (DoDD 8140.01 signed 11 Aug 2015)

**Intelligence Workforce (Cyberspace):** Personnel who collect, process, analyze, and disseminate information from all sources of intelligence on foreign actors' cyber programs, intentions, capabilities, research and development, and operational activities. - (DoDD 8140.01 signed 11 Aug 2015)