Homeland Security

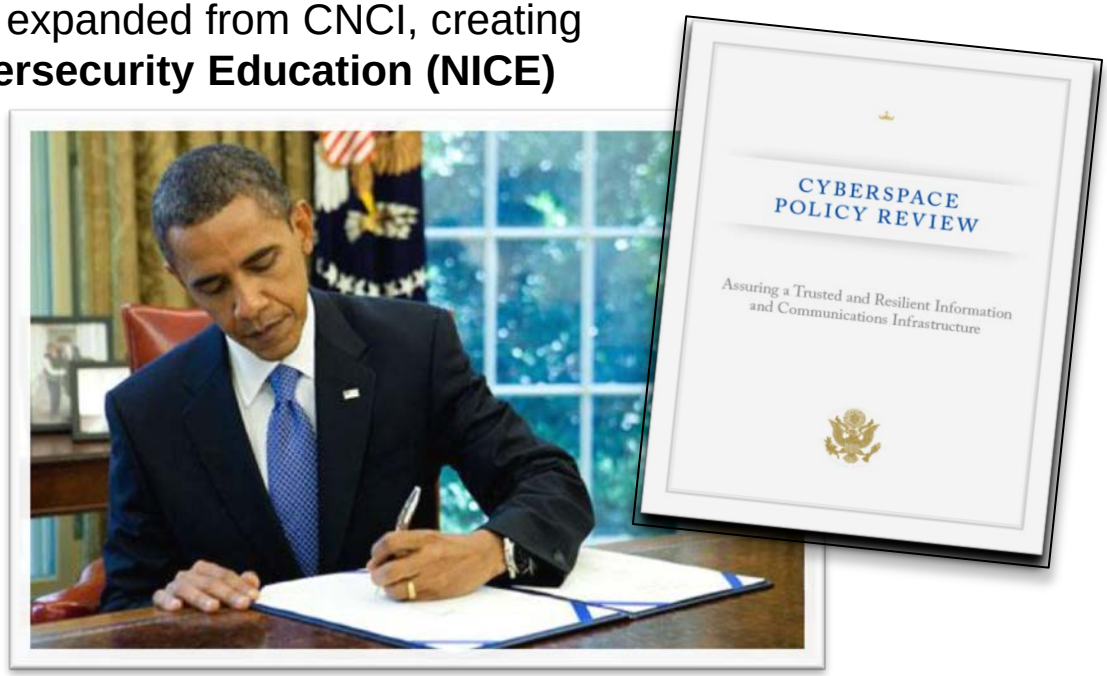
NICE and the Federal Virtual Training Environment (FedVTE) and Federal Cybersecurity Training Events (FedCTE)

August 2013

Cyber Threats Increase Every Day

As a Nation, we must respond by improving our technical infrastructure, *and* by developing and maintaining a highly-skilled cyber workforce capable of protecting our networks against cyber attacks.

- In May 2009, the President ordered a Cyberspace Policy Review to develop a comprehensive approach to secure and defend America's infrastructure. The review built upon the Comprehensive National Cybersecurity Initiative (CNCI) launched by President George W. Bush in 2008.
- The Cyberspace Policy Review expanded from CNCI, creating the **National Initiative for Cybersecurity Education (NICE)**



FEDVTE/CTE SUPPORTS NICE

- The Nation needs greater cybersecurity awareness
- Potential employees need information about skills and abilities required for cybersecurity jobs
- VTE was originally created for the Air Force to deliver cybersecurity training to Airmen and women stationed around the globe.
- DoD CIO made the VTE available to all four services, combatant commands, and field activities in support of DoD 8570 policy.
- FedVTE/CTE was developed under CNCI 8 to close training gaps
- Under NICE, Fed VTE has been made available all Federal employees

The National Initiative for Cybersecurity Education (NICE) was established to create a cybersecurity education program for the Nation to use sound cyber practices that will enhance the Nation's security.

What Does FedVTE/CTE offer?

The National Cybersecurity Training and Education Program

- Mission is to provide online and on-demand training to cybersecurity professionals
- Provides hands-on, interactive labs and exercises in a virtual environment
- Both FedVTE and CTE programs delivers over 30,000 hours of training per month with an operating cost (shared) of $14 per hour of training delivered

FedVTE

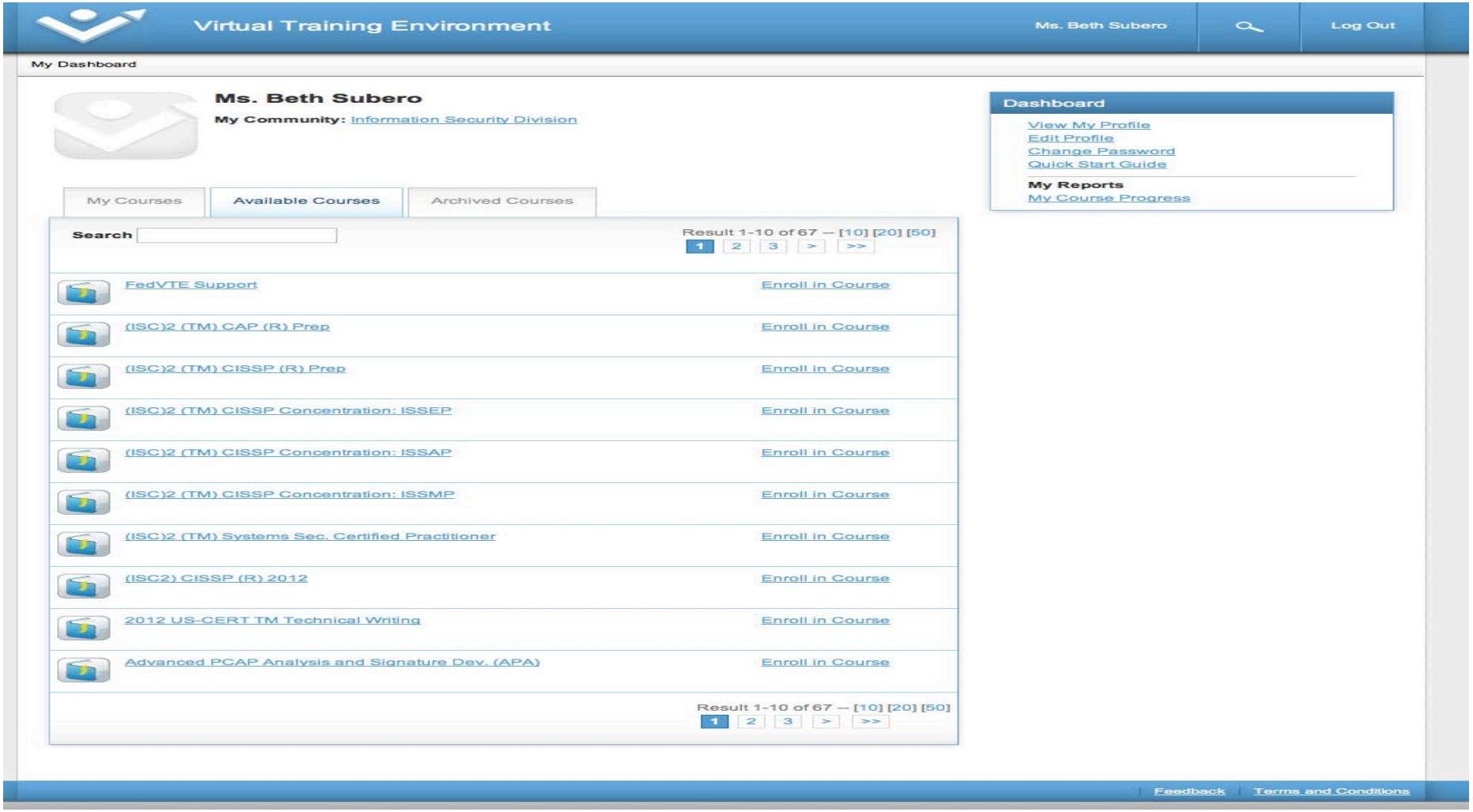
- Established in September 2012 and is already delivering over 30,000 hours of training each month
- Provides online, on-demand training and hands-on labs
- Used by over 120 organizations in every branch of the Government

FedCTE

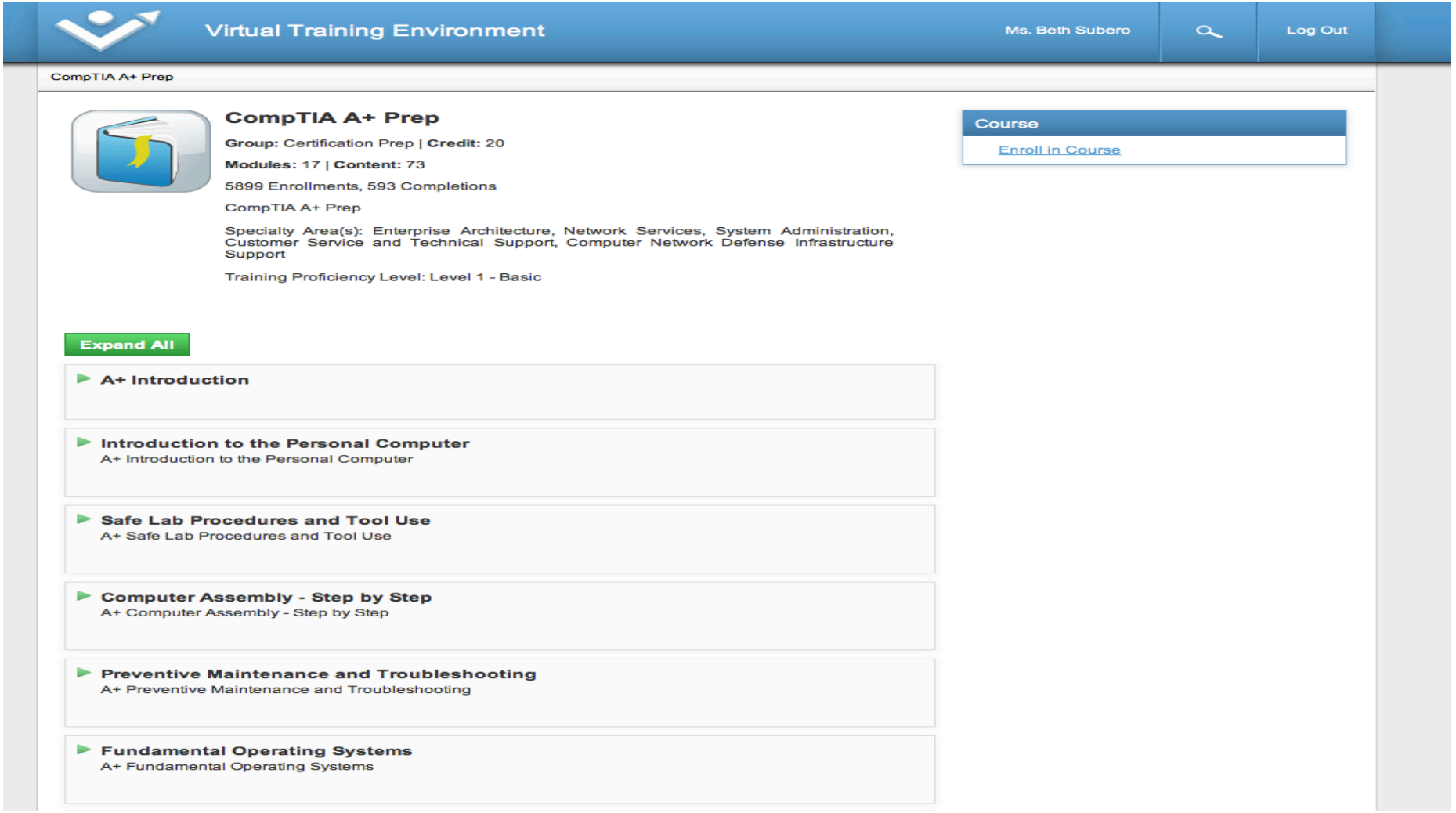
- Utilizes virtual world to provide remote, instructor-led training to students around the world, eliminating all travel costs.
- Current customers include Federal and SLTT governments and Academia
- FedCTE has trained 873 students from 130 organizations.

WHO IS USING FEDCTE AND FEDVTE?

What does FedVTE Look Like?



What does FedVTE Look Like?



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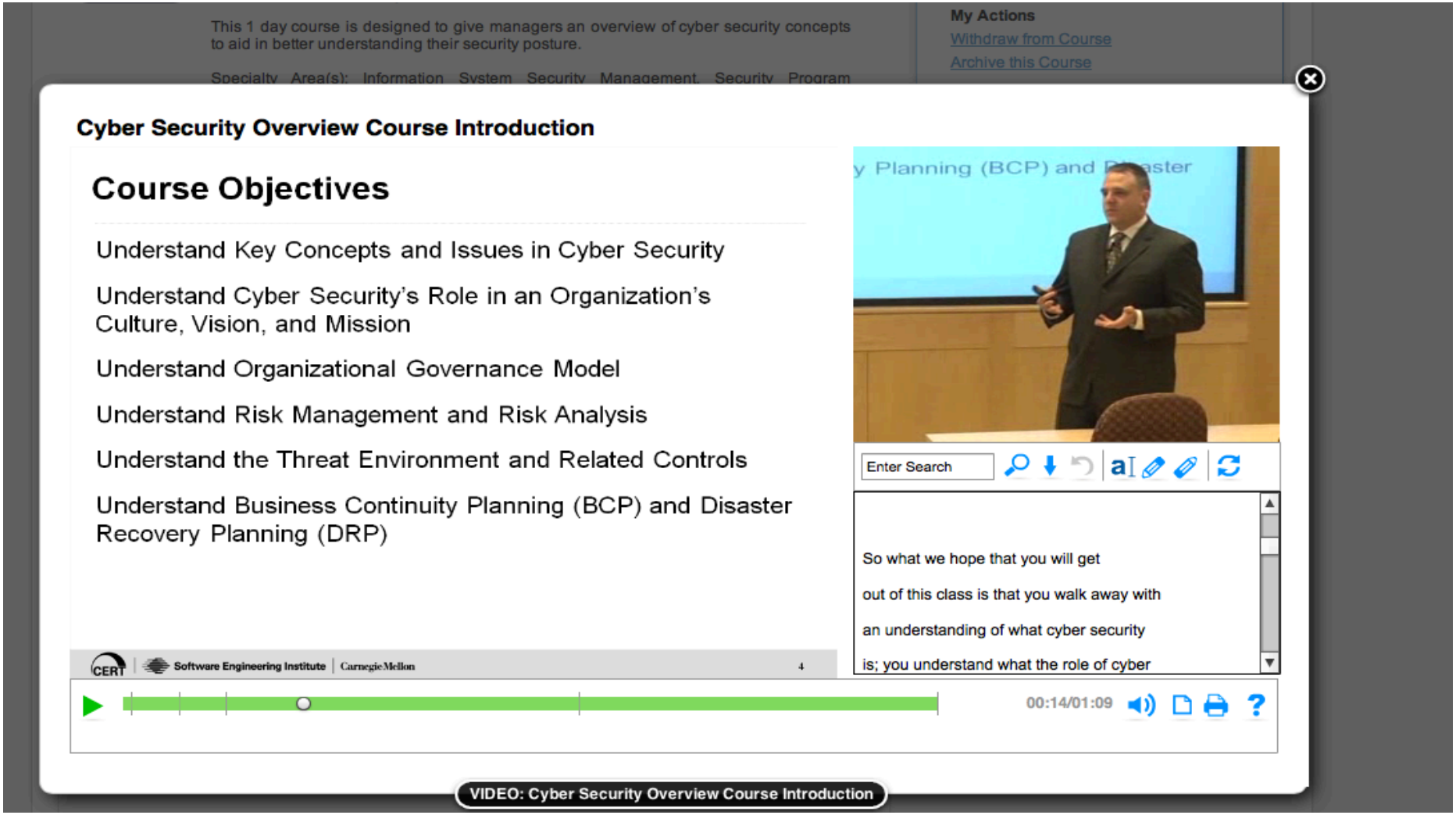

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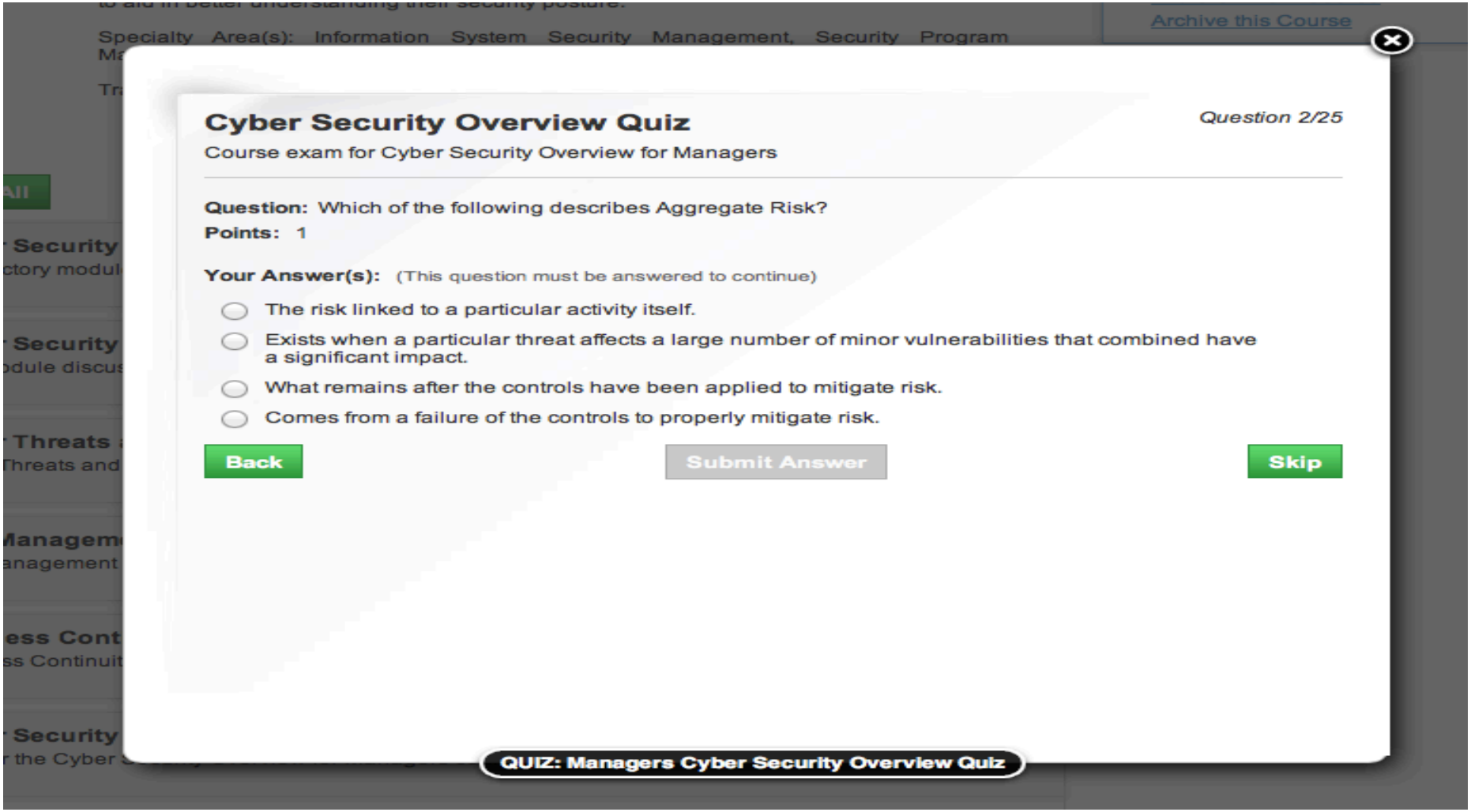

What Does FedCTE Look Like?

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FedVTE and FedCTE Expansion

- NICCS
- Framework
- ITWAC
- MS-ISAC Report
- FedCTE Competitions

National Initiative for Cybersecurity Careers and Studies (NICCS) Website

The NICCS website is a national online resource for information on cybersecurity awareness, education, talent management, and professional development and training. The NICCS website is an implementation tool for NICE.

Visit NICCS here: www.niccs.us-cert.gov

The National Cybersecurity Workforce Framework

NICE developed the National Cybersecurity Workforce Framework (the Framework) to codify cybersecurity work and to identify the specialty areas of cybersecurity professionals.

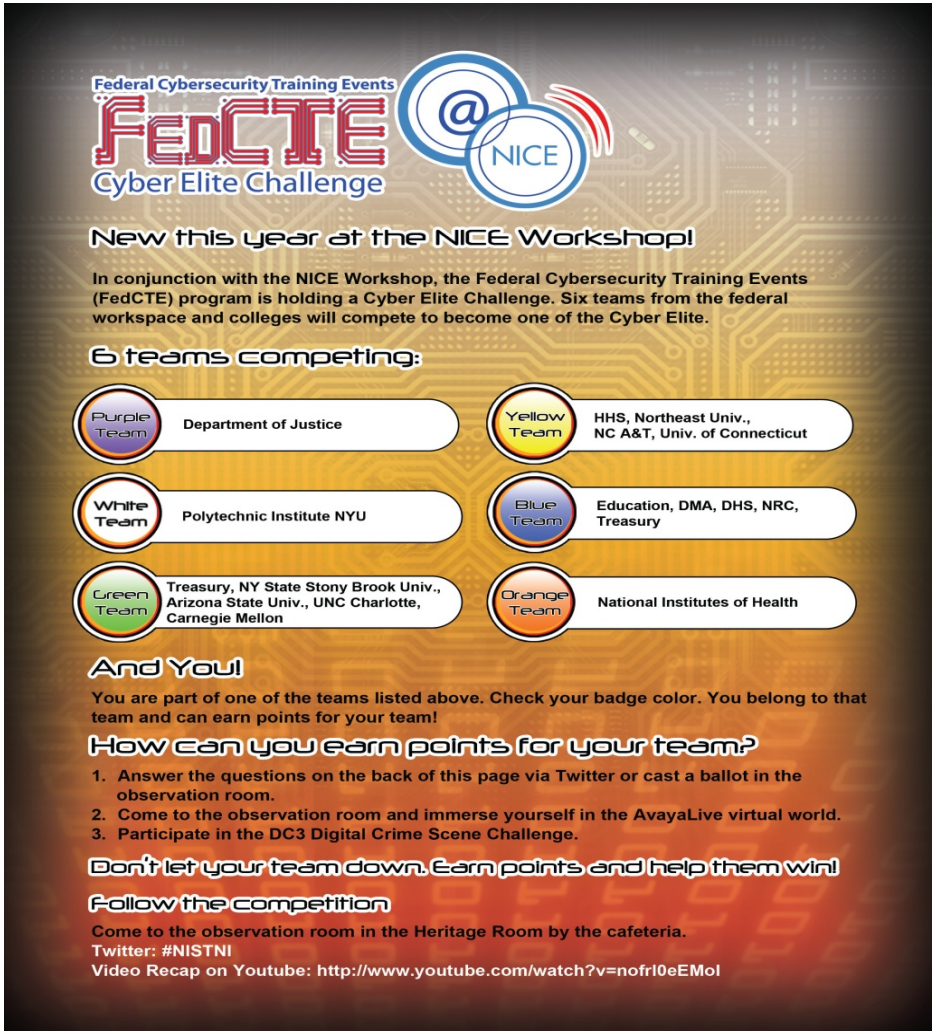
The Framework establishes:

- A common taxonomy and lexicon for cybersecurity workers that organizes cybersecurity into 31 specialty areas within 7 categories.
- A baseline of specialty areas, tasks, and knowledge, skills and abilities (KSAs) associated with cybersecurity professionals.

The Framework assists with strategic human capital efforts, including:

- Workforce planning
- Recruitment and Selection
- Training and Development
- Succession Planning

VIRTUAL ENVIRONMENT CYBER COMPETITIONS



- Virtual environment is dynamic enough to hold cyber competitions
- It is also immune to catastrophic events that can disrupt brick and mortar trainings, competitions, and conferences, e.g. Tropical Storm Sandy
- Events can bring attendees from across the nation to the same location (virtually speaking) without additional costs
- Are not affected by sequestration restrictions.

The IT Workforce Assessment for Cybersecurity (ITWAC)

2012 ITWAC

- NICE partnered with the Federal CIO Council to distribute the 2012 ITWAC
- A web-based, voluntary, and anonymous self-assessment of proficiency across cybersecurity competencies
- A total of 22,956 participants from 52 federal departments and agencies completed the ITWAC
- Participants indicated a strong need for training in the following Framework Specialty Areas:
  - Information Assurance (IA) Compliance
  - Vulnerability Assessment and Management
  - Knowledge Management

Fed VTE and CTE

- 2012 ITWAC identified gaps in provided training and workforce needed
- Found that FedVTE and CTE provided training for IA and Vulnerability Assessment
- Training for Knowledge Management is being created
- Fed VTE and CTE are constantly trying to seek out training gaps and close them

Federal Cybersecurity Training Event Demo

- NICE Workshop FedCTE Demo
  - Wednesday, September 18, 2013
    - Virtual Training Classroom
      - Lecture Room C
      - Olivia Morris
      - 9:00 am – 4:00 pm
    - Virtual Training Classroom Overview
      - Green Auditorium
      - Ed Nyack
      - 10:15 – 11:15 am

QUESTIONS OR FOR MORE INFORMATION

Please contact:

Jacqueline Sullivan

Program Analyst

DHS CE&A

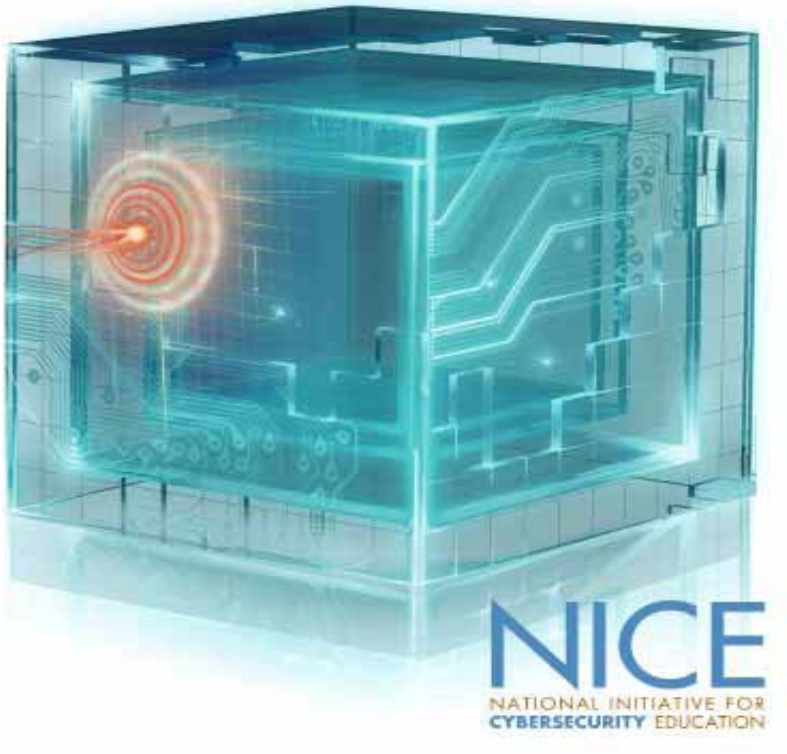
Phone: 703.235.5542

Email:Jacqueline.Sullivan@hq.dhs.gov

Ed Nyack

Program Analyst

DHS CE&A

Phone: 703.235.5294

Email: Edward.Nyack@hq.dhs.gov