**NICE Working Group**

**Meeting Minutes**

**Date: 7/25/2018 Time: 3:30 PM EST**

**Click** [**here**](https://www.nist.gov/itl/applied-cybersecurity/nice) **to view the NICE Website**

**SharePoint:** [https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Pages/home.aspx)

# Introduction and Ground Rules

* Danielle Santos, NICE Program Manager, welcomed members to the meeting. The NICE Working Group (NICEWG) is setup to provide a mechanism for collaboration between academia, government and industry and to discuss strategies and actions to aid in workforce development.
* During this meeting the Adobe Connect chat box feature should be utilized to provide feedback and ask questions.
* Danielle noted that participation in the NICEWG is not intended for advertising and promotional purposes and to keep this in mind when participating and using the chat feature. She urged all participants to collaborate and share information while working on projects.

# NICE Program Office Updates

* NICE operates from a [Strategic Plan](https://www.nist.gov/itl/applied-cybersecurity/nice/about/strategic-plan) that was submitted to Congress and includes goals to accelerate learning.
* There is a new grant opportunity for sector-based apprenticeships. Look for more information on that.
* The goal is to nurture a diverse learning community. The community college system is a participant in that goal. The [Community College Summit](https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.my3cs.org%2F&amp;data=02%7C01%7Cdanielle.santos%40nist.gov%7C219c866676ed4497e12b08d5f26fb97c%7C2ab5d82fd8fa4797a93e054655c61dec%7C1%7C0%7C636681484025917773&amp;sdata=ZuPS05576tQdpffppvSppB55U955tM72KTPG%2FNa42OE%3D&amp;reserved=0) is next week and members of the program office will be attending.
* NICE works with the private and public sectors on how to apply the [NICE Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework) and guide career development.
* NICE has developed a strategy to gain insight into international efforts and explore opportunities for collaboration. New Brunswick, Canada and Australia already work with the NICE framework to help promote the cybersecurity workforce and training globally.
* NICE recently joined the [Global Forum on Cyber Expertise](https://www.thegfce.com/). The 2018 annual meeting will be held in Singapore in September.
* Rodney was at the [Australian-American Leadership Dialogue](http://www.aald.org/) on the future of work and the impact of artificial intelligence.
* NICE has had students working over the summer. They created a series of online tutorials. The working group will hear from the students today.

# Opening Remarks

1. Industry Co-Chair Jason Hite provided the update. Recent posts on "Cybersecurity is Everyone's Job" have generated much interest on LinkedIn and Twitter.
2. Everyone is welcome to connect with Jason on LinkedIn and Twitter (@jhitehr) | Twitter.

# Standing Items

## **Report Roundup**

* Trey Kennedy, Senior Advisor to the CIO Council, presented on the CISO handbook recently published on CIO.gov.
1. The handbook tries to provide a baseline for those who act in a CISO function.
2. The document is lengthy, but the core information is covered in 70 pages and is based on the NIST framework.
3. The NICEWG will be particularly interested in section 3, the section relating to workforce. It brings a lot of information together and focuses on hiring authorities.
4. The handbook includes resources such as [NICCS](https://niccs.us-cert.gov/). The real benefit is that it provides foundational knowledge. It provides overviews of pathways for students if they are interested in getting into government. The hope is it will inspire people to get into government. The handbook will be updated over time to keep it current.
5. They hope is to have a searchable database in the future. The appendices have agency policies for those interested in policies as they relate to individual situations. There will be continued actions based on the president's management plan.
6. Email feedback@cio.gov or trey.kennedy@cio.gov with questions or comments.
7. The handbook can be found [here](https://www.cio.gov/assets/files/CISO_Handbook.pdf) .

## **Strategy Stories**

* Josh Stroschein, Assistant Professor, Dakota State University presented on the Capture the Flag (CTF) Framework.
1. Students find CTF an exciting way to learn that relates to real-world scenarios.
2. Josh is looking at capabilities assessments. Students can have a range of cyber capabilities and backgrounds.
3. The goal is to make the CTF concept more focused on education. The challenge is to be more oriented to outcomes and map to the CAE community and the framework.
4. The team started to develop a hint/help system for CTF challenges. Hints are not free, but have a cost related to the total value of the challenge itself. Ideally, there needs to be more types of challenges. Generally, the goal is to educate and engage.
5. There is no cost to use [the site](https://0xevilc0de.com/) to set up challenges. A staff of two (Josh and one graduate student), work on the CTF site currently. Use of the system can be competitive or not. Greater availability makes it useable by a wider audience.
* Plans to continue platform gamification, increase appeal to the K12 audience, and creation of a role-playing game style gameboard are in the works. Josh's work aligns with Strategic Plan Goal 2.1.
1. To get involved, email Josh with questions or comments.
2. See attached presentation and find out more [here](https://0xevilc0de.com/) .

## **Metric Moment**

* Jen Briones presented on the Roadmap for K12 and Workforce Data Linkages.
1. The [Workforce Data Quality Campaign](https://dataqualitycampaign.org/resource/roadmap-k-12-workforce-data-linkages/) is a non-partisan effort working on data in education. Data should be used to support students, particularly as they leave high school and continue education or head into the workforce. One mechanism that makes this possible is data linkage.
2. There are six key areas:
	1. Shared Vision – Having a shared vision is important;
	2. Cross-agency Data Governance – Developing clear roles for each agency that are clearly defined and includes accountability;
	3. Data Matching and Sharing – Developing a deliberate, sustainable process for data matching and ongoing security;
	4. Data Analysis and Use – Determining who has access to linked data, whether individual or aggregated;
	5. Capacity Building – Having adequate staff to support students; and,
	6. Privacy and Security – Safeguarding data in compliance with federal and state laws on data sharing and protection.
3. See attached presentation and find out more [here](https://dataqualitycampaign.org/resource/roadmap-k-12-workforce-data-linkages/) .
4. Please contact Jen here.

# Subgroup Updates

## **Apprenticeship**

* Marian Merritt provided the update.

## The Apprenticeship group has continued to grow. A new Landscape Survey project group has just started that meets every two weeks.

## The full Apprenticeship subgroup meets the fourth Friday every month at 11 a.m. Eastern Time.

## There was an announcement from DOL regarding a sector-based funding opportunity related to apprenticeships. More information can be found [here](https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.dol.gov%2Fnewsroom%2Freleases%2Feta%2Feta20180718&amp;data=02%7C01%7Cdanielle.santos%40nist.gov%7C219c866676ed4497e12b08d5f26fb97c%7C2ab5d82fd8fa4797a93e054655c61dec%7C1%7C0%7C636681484025917773&amp;sdata=zHLR%2Bl9JkYSxs1DnrnsI6U94s%2BIzGiPVbdzmtKcEoBE%3D&amp;reserved=0).

## Visit the Apprenticeship website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/apprenticeship-sub-working-group) .

## **Collegiate**

* Rodney Petersen provided the update.

## Community colleges and four-year schools represent pathways to their students but look for alternatives as well. The group will be further discussing this topic.

## The subgroup is also discussing the value of higher education and attacks, such as the higher cost and if it’s doing an appropriate job of documenting knowledge and skills. Also, reducing time and cost to obtaining academic degree and dual enrollment.

## The next subgroup meeting is 8/14.

## Visit the Collegiate website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/collegiate-sub-working-group) .

## **Competitions**

* Danielle Santos provided the update.

## The draft guide for competitors is progressing. Contact Laurin Buchanan, Co-Chair, if interested in contributing.

## Podcasts on various competitions topics are being developed and can be found [here](https://www.youtube.com/cyberfed) .

## The subgroup meets the fourth Thursday each month at 3:30 p.m. Eastern Time.

## Visit the Competitions website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/competitions-sub-working-group).

## **K12**

* Danielle Santos provided the update.

## David Hernandez is now an official co-chair for the K12 subgroup.

## The group is focusing on [NCCAW](https://www.nist.gov/itl/applied-cybersecurity/national-initiative-cybersecurity-education-nice/events/national).

## A more formal reporting mechanism with activities for the week will be coming.

## The next meeting is 9/12.

## Visit the K12 website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/k-12-sub-working-group) .

## **Training and Certifications**

* Rodney Petersen provided the update.

## T&C came out with a [one pager](https://www.nist.gov/sites/default/files/documents/2018/07/24/nice_value_of_certifications_7.19.18.pdf) on the value of certifications.

## They are looking at the value of higher education in the face of rising cost and how well it documents knowledge and skills.

## There is a goal to investigate ways to reduce time and cost to complete a degree.

## The next meeting is 8/1.

## Visit the Training and Certifications website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/training-and-certifications-sub-working-group) .

## **Workforce Management**

* Susie Cone provided the update.

## The group continues to work on the guidebook. There is one week left in the public review period. There have been 820 downloads of the guidebook from the NICE website, along with 26 survey responses and over forty emails from respondents. The guidebook can be downloaded [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/workforce-management-sub-working-group/workforce).

## Responses have indicated the document is generally useful and effective. There is a lot of good feedback. There is a range of feelings on whether the level of complexity is appropriate to the audience, and there could be more international information.

## Susie would like to see more feedback from non-profit organizations and other less represented sectors. Please provide the link to anyone in those sectors or roles.

## Next steps include a working session to determine what to integrate in the final version. The goal is to publish and promote the guidebook in October, and for the NICE Conference.

## The next subgroup meeting is 8/16.

## Visit the Workforce Management website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/workforce-management-sub-working-group) .

# Project Progress Reports

## NICE K12 Cybersecurity Education Conference

* Danielle Santos provided the update.

## The conference is scheduled for December 3-4, 2018 in San Antonio, TX. Planning continues, and the call for proposals has closed. The presenters have been selected.

## Registration is now open. There are three pre-conference workshops: hacking resources, classroom cyber ranges, and resources for teachers. More information coming soon. Early bird registration rates end 7/31.

## Find out more [here](https://www.k12cybersecurityconference.org/).

## NICE Annual Conference

* Randy Pestana, Florida International University, provided the update.

## The conference is scheduled for November 6-7, 2018 in Miami, FL.

## Registration is open for the conference and pre-conference seminars. There are four seminars on November 5. There is a fee, and seating is limited to 50. Visit [here](https://niceconference.org/registration) for registration information.

## Early bird registration will be open through the end of August.

## Proposals have been reviewed. Those selected will be notified soon.

## Find out more [here](https://niceconference.org/) .

## NICE Challenge Project

* James Ashley, California State University, San Bernardino, provided the update.

## The new curator feature will be released, allowing comments on submissions.

## Other new features include: re-designs of the user interface to make it easier to understand and use and adding the ability to add a reservation type. It will give more insight into how the portal is used.

## A re-design of the reservation interface is in the works.

## The NICE Challenge Project looks at the NICE framework to create real world scenarios where students exhibit knowledge, skills, and abilities doing tasks relating to specific cybersecurity work. The scenarios simulate a real business situation and determines student ability to do tasks in that situation.

## There are about 80 challenges currently, most fall in the "operate and maintain" category. Scenarios in "protect and defend" are gaining in interest.

## Find out more [here](https://nice-challenge.com/).

1. CyberSeek
* Tim Herbert, research team at CompTIA, provided the update.

## [Cyberseek](https://www.cyberseek.org/) is also known as the "heat map", but it is an analytic tool that tracks cybersecurity job demand. Information on career pathways is shown.

## The data was refreshed last month. Demand for people to fill cybersecurity positions continues to exceed the supply.

## The District of Columbia has the most openings and the largest overall proportion of the national workforce in cybersecurity.

## There is interest in international expansion of initiatives and activities into Canada.

# New Business

* Latasha McCord, DHS, presented on DHS Cybersecurity Education and Training Assistance Program (CETAP).

## The Cybersecurity Education & Awareness Branch (CE&A) manages programs that promotes training and awareness for K12, teachers, and the public to increase the number of graduates in the cybersecurity field.

## CE&A announced the CETAP program. The program provides funding to develop K12, STEM and computer science curriculum.

## The deadline for applications is August 3rd. Eligible applicants include non-profit with 501 (c) (3) status.

## See presentation and find out more [here](https://www.grants.gov/web/grants/search-grants.html?keywords=PD-CTP-18-001) .

* Danielle Santos spoke with the summer students in the NICE Program Office.

## Aditya Singh is a senior at Clarksville High School. Adi is part of the NIST Summer High School Internship Program (SHIP). The program receives applications from students across the state then assigns various mentors. Adi has been analyzing work role alignment between the NICE Cybersecurity Workforce Framework and the NIST Cybersecurity Framework. He has also been analyzing pathways a student can take to pursue cybersecurity. Adi will summarize his work in a presentation.

## Christine Hysell works at the cybersecurity center at Cal State. Christine worked on creating a timeline on how she got to where she is today. She has also been coordinating and reporting on NICE tutorials which will be posted soon. Tutorial topics include such things as resume writing and the NICE Framework. She has also helped with graphics development.

## Samantha Halam is in her 4th year at North Carolina State. She is working on 2 bachelor’s degrees over a 5-year period. Samantha is with NICE under the Summer Undergraduate Research Fellowship (SURF) program. She is reading up on botnet reports with a focus on goal 5 (increase awareness and education across the ecosystem). She is looking through the top 20 goals in computer science engineering to see how to implement the goals into curriculum. Samantha will summarize what she’s learned during a required talk in August.

# Summary of Action Items

## K12 Conference early bird registration ends July 31.

## The comment period ends July 31 for the Workforce Management Subgroups guidebook.

# Next Meeting Reminder. The next NICEWG meeting is scheduled for August 22, 2018.