**NICE Working Group**

**Meeting Minutes**

**Date: December 4, 2019 Time: 3:30 PM ET**

**SharePoint Page:** <https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG>

# Introduction and Ground Rules

# Danielle Santos, NICE Program Manager, welcomed participants 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 urged all participants to collaborate and share information. The NICE Working Group [mailing list](mailto:nicewg@nist.gov) is a convenient way to disseminate information. The [SharePoint site](https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/Pages/home.aspx) stores meeting agendas and minutes, documents and member information.

# Opening Remarks

## Bill Newhouse, Deputy Director of NICE, thanked Jason Hite, Daoine Centric LLC, for his contributions as the Industry Co-chair of the NICE Working Group. Jon Brickey, Mastercard, is the new Industry Co-chair.

# Standing Items

# Report Roundup – learning from good ideas - postponed

# Strategy Stories – new developments that align to NICE Strategy

# David Forscey, Managing Director, Aspen Cybersecurity Group, spoke about the “Aspen Cybersecurity Working Group.”

### Objective 3.2: Publish and raise awareness of the NICE Cybersecurity Workforce Framework and encourage adoption.

* Formal membership of this group includes CEOs, academia, a law maker, and more. Their goal is to implement existing recommendations. This new group is making progress. One focus of this group is on talent and workforce development. They published the [*Principles for Growing and Sustaining the Nation’s Cybersecurity Workforce*](https://assets.aspeninstitute.org/content/uploads/2018/11/Aspen-Cybersecurity-Group-Principles-for-Growing-and-Sustaining-the-Nations-Cybersecurity-Workforce-1.pdf?_ga=2.35017383.78702341.1575561543-487334654.1574886631) in November 2018. NICE was very involved in developing the eight principles.
* Some of the additional efforts of this group are:
  + Widen the candidate pipeline
  + Update job descriptions to be more engaging
  + Simplify career models
  + Think of new ways to hire and train
  + Launch apprenticeship programs
  + Commit to employee development
  + Adopt productive partnerships
  + Make cybersecurity everyone’s business
* The next step is to use membership to persuade organizations that these principles make sense and to implement. Step one is to commit to the first three principles and focus on recruitment. The list of companies includes IBM, Google, Facebook, Symantec, etc. and not just cybersecurity companies.
* Step two is to get many more companies signed up.
* Step three is to develop a roadmap for organizations to implement the principles from the report. It can be provided to HR to use as an instruction manual. If members know companies that would be interested in committing, please connect with [David](mailto:David.Forscey@aspeninstitute.org). It’s good public relations and good for business. The key to getting on board is the recruiting team (CISO and HR team) and communications team.
* For educational institutions, the goal is to fold all options into an eventual roadmap. If you can think of good ideas of how you or others have implemented, lets include that in the roadmap. They want to scale as much as possible. Enough detail must be provided to change operations.

### Find out more below:

* + - * 1. Aspen Cybersecurity Group - Principles for Growing and Sustaining the Nation's Cybersecurity Workforce: <https://www.aspeninstitute.org/publications/principles-for-growing-and-sustaining-the-nations-cybersecurity-workforce/>
        2. October 30 Press Release: <https://www.aspeninstitute.org/news/press-release/closing-cybersecurity-skills-gap/>
        3. October 30 Blog Post: <https://www.aspeninstitute.org/programs/cybersecurity-technology-program/aspencyber-workforce-pipeline/>
        4. Aspen Cybersecurity Group: <https://www.aspeninstitute.org/team/aspen-cyber-group/>

# Metric Moment – what gets measured gets done

# Anastacia Webster, California State University, San Bernardino, presented on “CAE Job Fair Metrics.”

* The Centers of Academic Excellence Cybersecurity Virtual Career Fair was held September 27, 2019. It was sponsored by CyberWatch West and the National Science Foundation.
* 820 unique student attendees, 20 employers, and 4 CAE institutions participated.
* Some employers included Morgan Stanley, DISA, IBM, and NIST Cyber. They wish to find students with a passion for cybersecurity and fill jobs in cyber.
* A survey was included in the environment. 119 persons took the survey.
  + 13.6% were alumni from CAE institutions.
  + 81% are actively looking for a job.
  + Some are there to learn about the environment and different companies.
  + Many are interested in employment with the government which is up from previous years.
  + 16.8% of the respondents are interested in jobs in academia.
  + 81.2% are likely to attend again.
  + 87.75% feel prepared to continue their job search.
  + From the employer side, they would like to see more training for students on how to interact in a virtual setting.
* Next year the virtual career fair is scheduled for September 9, 2020.
* A member participant asked why entry level positions ask for 2-5 years of experience? While Anastacia can’t answer why, people are very aware. Many are still operating on older job requisitions.
* Find out more [here](https://www.caecommunity.org/).

# Subgroup Updates

# Apprenticeship –

## Girish Seshagiri, Executive Vice President and CTO at ISHPI Information Technologies and Co-chair, provided the update.

## There was no meeting in November due to the NICE conference.

## This subgroup is working on a Work Based Learning Project. A survey for those in academia was developed and routed for feedback to some NICE members in academia. They are now ready to pilot the survey to 10-15 colleges and then branch out from there.

## The attempt is to find out which work based learning approaches are being used and which are working.

## Another project is working on how to remove the barriers on a large scale in the use of apprenticeships. They want to create the artifacts to support a program.

## Finally, there is a ROI project. The goal is to modify a ROI calculator for use in apprenticeships.

* The next subgroup meeting is scheduled for January 24th at 11:00am, ET.
* Visit the Apprenticeship subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/apprenticeship-sub-working-group).

# Collegiate –

### Denise Kinsey, University of Houston and Co-chair, provided the update.

* There was no formal meeting in November due to the NICE Conference. A report on the Value of Higher Education is ready for feedback.
* Denise thanked Stephen Miller, outgoing co-chair, for his leadership.
* Denise Ferebee, LeMoyne-Owen College, was welcomed as the new co-chair.
* The next Collegiate subgroup meeting is scheduled for December 10th at 2:00pm ET.
* Visit the Collegiate subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/collegiate-sub-working-group).

# Competitions –

### Brad Wolfenden, EmberSec and Co-chair, provided the update.

* The subgroup heard a presentation from Mari Galloway, Sr. Architect at Casino, on the Women’s Society of Cyberjutsu (WSC).
* Mari spoke about their work on making competitions more accessible and how they work to diversify the field. They also focus on the effectiveness for employers.
* Ongoing active projects include the guide for competitors and how to build a competition.
* Dr. Dan Manson has a [podcast channel](https://www.youtube.com/cyberfed) where he interviews various people in competitions. If working group members have candidates to interview, let us know.
* A member asked if Competitions crosses over to Collegiate to leverage collegiate events? Yes, and K12 and Higher education.
* The next Competitions subgroup is scheduled for January 21st at 3:00pm ET.
* Visit the Competitions subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/competitions-sub-working-group).

# K12 –

### Laurin Buchanan, Secure Decisions and Co-chair, provided the update.

* Laurin noted the last K12 meeting occurred during [National Cybersecurity Career Awareness Week](https://www.nist.gov/itl/applied-cybersecurity/nice/events/national-cybersecurity-career-awareness-week/past-events) (a project of the K12 groups).
* The webpages exist beyond just the week. There is a lot of great information.
* Other projects include a school counselor cybersecurity career one pager. The final edits were reviewed during the NICE Conference.
* The group is working on a CTE toolkit and a teacher professional development one pager. They are also looking at conducting an environmental scan on what is out there and how to organize it.
* There is a [Presidential Cybersecurity Education Award](https://www.ed.gov/news/press-releases/nominations-open-inaugural-presidential-cybersecurity-education-award) announced in October 2019. This should encourage people to find out more about cybersecurity.
* The next K12 subgroup is scheduled for January 8th at 3:30pm ET.
* Visit the K12 subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/k12-sub-working-group).

# Training and Certifications –

### Bill Newhouse, Deputy Director of NICE, provided the update.

* The subgroup continues work on updating the [illustrative mapping](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/training-and-certifications-subgroup-0) of training to the NICE Framework. The mappings are opinions of various groups.
* The Army has a program offering veterans and soon to be veterans to take courses through a grant. This ought to inspire those to enter this field and use the grants to get the training necessary.
* The next meeting will include a speaker that will talk about table top exercises and their cyber range.
* The next T&C subgroup is scheduled for December 11th at 2:00pm ET.
* Visit the Training and Certifications subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/training-and-certifications-sub-working-group).

# Workforce Management –

### Susie Cone, IT Consultant and co-chair, provided the update.

### Susie welcomed Karen Jensen, Saaby Consulting, as the new Co-chair. Thanks, and gratitude go to Maurice Uenuma, Tripwire, who served for 3 years.

### The subgroup started a project focused on rewriting job descriptions. They are reviewing job descriptions with help from DOL, OPM, O’NET and others. They are currently gathering information to look at standardizing job descriptions. The next step is to develop the project team and to focus on a few top priority descriptions.

* The next Workforce Management subgroup is January 16th at 1:00pm ET.
* Visit the Workforce Management subgroup website [here](https://www.nist.gov/itl/applied-cybersecurity/nice/about/working-group/workforce-management-sub-working-group).

# Project Progress Reports

## **NICE Annual Conference**, November 18-20, 2019 - Randy Pestana, Florida International University, provided the update.

* The NICE Conference celebrated its 10th anniversary.
* There were 819 attendees.
* For those that attended, please provide feedback via the Whova app.
* Next year’s conference is November 16-18 in Atlanta GA. A new website will be ready soon.
* A March call for proposals is anticipated. The program committee is being built now.
* Find out more [here](https://niceconference.org/).

## **NICE K12 Cybersecurity Education Conference**, December 9-10, 2019 – Amber Lindsay, Vice President, iKeepSafe, provided the update.

* The conference is in Orange County CA.
* Pre-conference workshops and a tour of the Orange County Department of Education data center will be December 7-8.
* The conference features five different tracks as well as hands on table top exercises.
* The theme is Innovation, Vision, Imagination: Harnessing the talent of today to build the cybersecurity workforce of the future.
* They are expecting a sold-out event.
* Find out more [here](https://www.k12cybersecurityconference.org/).

## **NICE Challenge Project**, – James Ashley III, Lead Engineer/Project Manager, CSUSB, provided the update.

* The goal of this project is to provide the most realistic experience for students year-round.
* There is a scheduled release for the Protect and Defend category this month.
* A beta version of a new feature that allows students to take their results with them is now live.
* The project is six years old. There are over 100 challenges, a maturation of the web platform, a wide user base and utilization. Monthly sign-up request averages are up with about 17 requests on average per month this year. There is about a 148% increase of educational institutions for the past two years. Regarding the user base utilizing the challenges, there were about 48,000 work spaces requested this year. This represents huge growth.
* There will be a ceiling with the infrastructure.
* James noted that it’s been a privilege to work with this community.
* Find out more [here](https://nice-challenge.com/).

# Featured Topic

## Ann Beheler, Ph.D., PI, National Convergence Technology Center, Executive Director, Emerging Technology Grants, Collin College, presented on “IT Skills Standards 2020 and Beyond.”

* The National Convergence Technology Center has been in existence since 2012 funded through a grant from NSF. They are working on IT skills standards that are employer driven. There are 75+ colleges in the center. There is always at least one cybersecurity and software development track. The foundation is Business and Industry leadership. They are concerned about the pipeline of IT workers. They are seeing a narrow pipeline and requirements are frequently changing.
* Their purpose is to:
* Create a contemporary, future-facing set of IT Skill Standards for the most critical IT job clusters, led by employer subject matter experts (SMEs) nationally.
* Convert results into Student Learning Outcomes for wide distribution
* The work starts with existing standards for a given cluster; employers update through a structured process
* The focus is on 10 job clusters. The plan is to ask educators to turn the findings into student information and learning outcomes. They’ve had more than 90 people during 4 meetings. People were open as opposed to proprietary. When asked if this leverages the NICE Framework, Ann stated that for each cluster, various KSAs from the NICE Framework and others were used. Are they creating standards for product developers? Yes, for software development. There’s a definition for each cluster from everything from web development, scripting, etc. They are focusing on entry level skills and largely focused on college and technical college.
* The grant is just over a year old. They are in the process of synthesizing meeting data. Standards for the first three clusters should be available by February or March 2020. NICE Working Group members can subscribe to the distribution list to track progress. Members can apply to be an educator or employer SME. Travel is paid for. Members can recommend employer SME’s or educators.
* The outcome of this project is taking the KSAs that are highly prioritized and asking educators to convert into student learning outcome language.
* See the presentation and find out more [here](https://www.connectedtech.org/).

# Summary of Action Items

* Bill Newhouse let members know the NICE Program Office [seeks comments](https://www.nist.gov/news-events/news/2019/11/nist-seeking-input-updates-nice-cybersecurity-workforce-framework) on the NICE Framework. They are looking for information on how it’s being used and comments to improve. Additional information was provided during a [webinar](https://www.nist.gov/news-events/events/2019/12/nice-webinar-how-you-can-influence-update-nice-framework). Comments are welcome through January 13th. One goal is to make the Framework agnostic to any industry. They want this to work for all and not just the federal government.
* Minutes will be developed and sent to working group members.

# Next Meeting Reminder – The next NICE Working Group meeting is scheduled for Wednesday, January 22, 2020.