**NICE Working Group**

**Meeting Minutes**

**Date: January 22, 2020 Time: 3:30 PM ET**

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

1. **Introduction and Ground Rules**

# Rodney Petersen, NICE Director, 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.

# Rodney 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.

1. **Opening Remarks**

Rodney Petersen provided the opening remarks.

1. The NICE Program office is reviewing and updating the [NICE Strategic Plan](https://www.nist.gov/itl/applied-cybersecurity/nice/about/strategic-plan). The current plan was developed in 2016. It is mandated by Congress and required to update every five years. The NICE Program office is engaging this working group and each subgroup for feedback. Ideas will be gathered over the next several months. Please send any feedback directly to the NICE Program office: [nist.nice@nist.gov](mailto:nist.nice@nist.gov). The goal is to have the new plan finalized by the 2020 NICE Conference.
2. The [NICE Workforce Framework](https://www.nist.gov/itl/applied-cybersecurity/nice/nice-cybersecurity-workforce-framework-resource-center/current) is getting an update as well. The request for comment period closed Monday, January 13th. The program office is now adjudicating and summarizing the comments. The comments will be used to create further dialogue to engage with the community through spring and summer.
3. The monthly [NICE webinar series](https://www.nist.gov/itl/applied-cybersecurity/nice/events/webinars) will begin Wednesday, January 29th. The January Webinar, Learning Principles for Cybersecurity Practice, will be focused on cybersecurity principles. The webinar will begin a dialogue about reaching consensus for a common set of cybersecurity principles to be communicated, acquired, and practiced by learners of all ages – from children and youth to adults – and workers at every stage of their career from entry- to advanced-levels. The February webinar will look at privacy principles.
4. The 2020 RSA Conference is taking place from February 24-28th. NICE will be conducting a workshop on use cases of the NICE Framework. The workshop is invitation only. If members are attending the conference and wish to participate in the workshop, please email the NICE Program Office. NICE and NIST will have booths at the conference as well so stop by and see us!
5. **Standing Items**
6. **Report Roundup – learning from good ideas**

Parham Eftekhari, Executive Director, Institute for Critical Infrastructure Technology (ICIT), spoke about the ICTI report on “The Business Value of Diverse InfoSec Teams – Gender, Racial, Cognitive, and LGBTQ Diversity”

* The Institute for Critical Infrastructure Technology (ICIT) is a non-profit, non-partisan think tank working to improve resiliency through a foundation of objective research. ICIT’s content is not gated nor do they push product or vendor pitches.
* The report to which Mr. Eftekhari spoke was released on January 20th to commemorate Martin Luther King Day. Many of the contributors are former government executives from across the federal government.
* Diversity is morally and ethically right as well as good for business. Diversity makes for better decision making. It also leads to stronger resilience in organizations.
* The report broke down diverse groups to focus on and discusses cognitive diversity. Someone who might be on the spectrum, with Asperger’s for example, could have profound and deep analytical skills. Some of the most prominent Silicon Valley executives are not considered cognitively normal. The LGBTQ experience revolves a lot around the internet and social media so someone within that group might have different kinds of privacy concerns. The information within the report is based on studies demonstrating the link between diversity and improved outcomes.
* If anyone wishes to contact Mr. Parham he can be reached at: [Parham@ICItech.org](mailto:Parham@ICItech.org)
* Rodney inquired if Mr. Parham had any thoughts on recruitment and transforming the hiring process? One of the most powerful change agents is the team or individual responsible for hiring. Look at the processes that some jobs use for hiring. People are discounted for the wrong reasons such as not having a master’s degree. The HR question will drive a lot of the changes.
* Find out more [here](https://icitech.org/the-business-value-of-a-diverse-infosec-team-a-discussion-on-how-gender-racial-cognitive-and-lgbtq-diversity-improves-cybersecurity-outcomes/).

1. **Strategy Stories – new developments that align to NICE Strategy**

Eric Larson, Senior Director of the IT Futures Labs at the Creating IT Futures Foundation , presented on ‘[Future of Tech’](https://www.futureoftech.org/cybersecurity/)

NICE Strategic Plan Goal #2: Nurture a Diverse Learning Community

* Mr. Larson works with the charitable arm of CompTIA, a 501c, working closely with CompTIA every day. He spoke about the soft launch of ‘Future of Tech’.
* CompTIA is known mostly as a certification body but works more broadly to promote industry as a whole and expand the pipeline of tech workers. Three years ago, they started to work with youth as well as adults on second careers.
* NICE and CompTIA worked closely on the development of [CyberSeek](https://www.cyberseek.org/). ‘Future of Tech’ is similar. It attempts to bring structure to chaos with respect to cybersecurity jobs. The aim is to consolidate the information and data for people in order to make it actionable.
* ‘Future of Tech’ is mainly a website as it currently stands. The initial aim is to inspire pioneers such as young adults in jobs who are not in upward mobility. Additionally, they aim to equip teachers in high schools to talk about emerging technologies as well as inspire students. There are also many professionals whose jobs intersect in technology, but do not have a working knowledge of what the organization sells in the space. Or, anyone who is baffled by cybersecurity and AI. In essence, it is a one-stop shop for the public who want more information.
* ‘Future of Tech’ knows that video is a growing way for people to get information. They released five topics on the site in 2019 explained through video, to include: Cybersecurity, Big Data, Digital Health, IoT and AI. Additional releases are coming in 2020 which will cover robotics, autonomous vehicles, blockchains, etc.
* The ‘Future of Tech’ approach is to be people centric. They worked very hard to be a more friendly space for tech. Their photos include people in them as technology is irrelevant without people. They also worked to ensure if someone visits the site, whether for a little or a lot of time, they still get something out of it. There are quick points to view for a brief visit as well as seven chapters in which to deep dive for a longer duration. Interactive activities are included to keep people engaged. Relevant links are provided throughout the site where appropriate.
* The site recently made available downloadable lesson plans for teachers. They can also track the number of downloads since the teachers must contact them for the answer keys.
* They welcome everyone to explore the site and provide any feedback, suggest resources they should include, or provide thoughts on directions they can go.
* See presentation and find out more [here](https://www.futureoftech.org/cybersecurity/).

1. **Metric Moment – what gets measured gets done**

John McCumber, Director of Cybersecurity Advocacy, North America, ISC2, spoke to the study, ‘[Strategies for Building and Growing Strong Cybersecurity Teams’](https://www.isc2.org/Research/Workforce-Study)

* The annual survey is conducted with people who have cybersecurity titles as well as people who spend 25% of their time on cybersecurity. This year they surveyed double the amount of people from the previous year. Surveyors included people from North America, Europe, Latin America and Asia-Pacific.
* The current cybersecurity workforce still leaves a significant gap between the number of cybersecurity professionals in the field and the number necessary to keep organizations safe. Once you delve into the numbers it becomes clear that there remains a big challenge to enter a cybersecurity career field.
* What can industry and employers do to increase the cybersecurity workforce? Four key strategies have been identified that can be used:

1.) Training and Professional Development

2.) Ensure the net is cast as far as possible for undiscovered talent

3.) Grow your cybersecurity talent by hiring new workers

4.) Close the gap and further develop people with transferable skills

* Mr. McCumber invites everyone to look at the report and provide feedback. He will be doing a deep dive of the report during the February RSA Conference.
* Rodney remarked that each of the strategies presented could easily be implemented into the NICE Strategic Plan. He also went on to note the common concern about inflated requirements. What can people expect with certifications? What do they convey to hiring people and recruiters? How do we as a community deal with that? Mr. McCumber suggests the development of a strategy to reduce bias and holistically look at the workforce available to deal with cybersecurity workforce issues.
* Find out more [here](https://www.isc2.org/Research/Workforce-Study).

1. **Subgroup Updates**
2. **Apprenticeship**

Marian Merritt, NICE Industry Liaison, provided the update.

* Cecelia Schartiger is a newly joined co-chair. She is at IBM running a cyber program.
* For the “Work Based Learning Models” project, a survey has been developed for those that run work-based learning programs. The data will be collected and analyzed.
* The next subgroup meeting is scheduled for February 28th 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).

1. **Collegiate**

Denise Ferebee, LeMoyne-Owen College, provided the update.

* Rodney Petersen welcomed Denise as a new co-chair. Denise is an assistant professor at an HBUC and the Director of their Center for Cybersecurity.
* The “Value of Higher Education” project has a draft paper near ready. The paper will be reviewed by Collegiate members.
* The next Collegiate subgroup meeting is scheduled for February 11th 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).

1. **Competitions**

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

* The co-chairs developed and sent a survey to membership to gather information to guide efforts for this year. The survey asked about existing and new projects. The survey also garnered a new project lead for an active project.
* Podcasts continue to be developed by Dr. Dan Manson. They are housed on the [CyberFed](https://www.youtube.com/cyberfed) YouTube channel.
* A list of speakers to invite to the monthly meetings has also been developed.
* The next Competitions subgroup meeting is scheduled for February 18th 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).

1. **K12**

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

* During the first meeting of the year K12 members received an update on the 2019 K12 conference. They also discussed the [Presidential Cybersecurity Education Award](https://www2.ed.gov/documents/presidential-cybersecurity-education-award.pdf). Anyone can nominate. Nominations close 1/31/20.
* The co-chairs developed polling for members. Some leading projects include:
  + - * + Determining what cybersecurity principles are in the K12 space
        + Picking up the cross mapping of K12 standards to the NICE Framework
        + How cybersecurity fits into STEM
        + Identifying professional development resources that exist
        + Teacher certifications
* If anyone is interested in joining any of these projects, please reach out.
* The Cybersecurity Skills Journal is dedicated to evidence-based practices. Laurin is working on an issue on the NICE Framework and is seeking abstracts, ideas about challenges, benefits, usefulness, etc. Please email [Laurin](mailto:Laurin.Buchanan@securedecisions.com) for feedback and questions.
* The next K12 subgroup is scheduled for February 12th 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).

1. **Training and Certifications**

John McCumber, ISC2, provided the update.

* Jim Boardman, Palo Alto Networks, was welcomed as a new co-chair.
* The subgroup has closed the loop on the status of the cyber range project. There is a draft document near ready which members will review.
* Time is being spent on the next project which is “Training Best Practices and Innovation.” The team wishes to identify a document for academia and non-academia providers. The goal is to pull a team together to develop a document to be published by mid- year. The subgroup welcomes your ideas for best practices. Please submit feedback to [John McCumber](mailto:jmccumber@isc2.org).
* Other new business includes looking at Army grants for cybersecurity training opportunities for career development and accreditation of curriculum which is a challenge - what standards are we looking for? This is an on-going conversation for now. Ideas are welcome.
* The next T&C subgroup is scheduled for February 5th at 2:30pm 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).

1. **Workforce Management –**

### Karen Jensen, Saaby Consultants and Co-chair provided the update.

* Members have been looking at job descriptions and the potential for re-writing. The team wants to make sure the widest net is cast.
* Sample descriptions have been collected. Members are discussing “where are we” and “where do we need to go” to make sure we have a standardized platform.
* The next Workforce Management subgroup meeting is February 20th 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).

1. **Project Progress Reports**
2. **NICE Annual Conference** - Randy Pestana, Florida International University, provided the update.

* Save the date for the 11th Annual NICE Conference taking place November 16-18, 2020 at the Hilton, Atlanta.
* The program and organizing committee had their first meeting.
* The goal is to open the call for proposals in March.
* The theme and 4 breakout tracks are being finalized.
* Early bird registration should begin in July. The conference fee will remain the same.
* The conference website will update over the next month as we start finalizing themes and tracks.
* Find out more [here](https://niceconference.org/).

1. **NICE K12 Cybersecurity Education Conference -** Felicia Rateliff, Senior Program Manager, iKeepSafe, provided the update.

* The December 9-10, 2019 K12 Conference was sold out with over 480 participants from across the U.S. and more than six countries. There were eight pre-conference workshops held the Saturday and Sunday before the conference, mostly at Coastline Community College.
* Keynotes included Jon Brickey of Mastercard, Lisa Holman from the U.S. Postal Service, Finn Burmeister-Morton, La Vernia High School, and more.
* There were over 30 exhibitor tables with lots of giveaways.
* The evening social included robots and activities. It was a great networking event with a lot of participation.
* All available presentations have been uploaded to a page on the website.
* The 2020 conference is in St. Louis, Missouri in December. The hope is to finalize the planning committee by the end of February. The call for proposals should be announced in April.
* On the main page of the website, there is a button to subscribe to the mailing list.
* See presentation and find out more [here](https://www.k12cybersecurityconference.org/).

1. **CAE Community -** Anastacia Webster, California State University, San Bernardino, provided the update.

* A website survey was announced during the CAE Symposium. The goal is to know what the community wants and needs A weekly survey is sent to subscribers.
* The CAE Virtual Career Fair is scheduled for September 4, 2020 from 9-1 PT. The goal is to have registration open staring March 12th. The career fair is open to students, alumni, faculty, etc. of CAE institutions.
* The CAE 2020 Symposium immediately follows the 2020 NICE Conference in November. An open call for committee chairs will open in April and the call for proposals will open in June.
* Comments or questions can be directed to [Anastacia Webster](mailto:anastacia.webster@csusb.edu).
* See presentation and find out more [here](https://www.caecommunity.org/).

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

* This project develops real-world cybersecurity challenges within virtualized business environments that bring students the workforce experience before the workforce. The goal is to provide the most realistic experiences to students, at-scale year-round, while also generating useful assessment data about their knowledge, skills, and abilities for educators.
* The team is charting course for the new year. They sponsored a boot camp in Nevada. They are attending three upcoming high school events such as PRCCDC, a cyber competition in Tampa and an in-person teacher training in the Tampa Bay area.
* The project released a number of management and backend enhancements. They’ve also finished development on new NICE challenges for “Protect & Defend” and “Operation & Maintain.”
* During next month’s meeting, James hopes to share slides on the growth of project.
* Find out more [here](https://nice-challenge.com/).

1. **Featured Topic**

Harry Mourtos, Cybersecurity and Infrastructure Security Agency, presented on the “President’s Cup Competition.”

* The President’s Cup Competition was authorized by America’s Cybersecurity Workforce Executive Order (EO) 13870 signed in early May 2019. The EO tapped the Secretary of Homeland Security to run a competition with the goal to identify, challenge, and reward the United States Government’s best cybersecurity practitioners and teams across offensive and defensive cybersecurity disciplines. The task was to hold the competition by 31 December 2019.
* The first qualifying round launched within 30 days. There was an outpouring of participation and support. 214 teams participated across civilian and DoD entities. Round 1 was open to all teams. Round 2 was narrowed down to 49 participants.
* The qualifying rounds were jeopardy style challenges.
* They wanted this competition to be accessible across the federal government. The competition was online using 6-7 server racks running a variety of virtual solutions.
* The individual sides were open to anyone with a .gov or .mil email address. Once the first challenge was started, a competitor had 8 hours to finish. Organized challenges were based on the NICE Framework. There was a variety of challenges across the Framework and 10 functional areas. Some challenges had limited success.
* During round 2 board, there were fewer challenges but a final jeopardy worth 3k.
* The final round for individuals was a one-day capture the flag (CTF). The winner was an Air Force Academy Cadet; a great young future military officer.
* Team competition was a two-day event (CTF and then a proprietary challenge never seen (virtual escape room)).
* The competition was livestreamed and is free to view.
* The competition was very exciting to put on and there were great performances.
* There was a constraint with the timeline to share a public scoreboard. They do have plans to include this in 2020. Work will continue with DoD and inter-agencies on out-years, cash prizes, and other honors and recognition.
* When asked if community members may participate, Harry stated the main body is federal and executive branch employees. They are open sourcing the challenges and also expanding plans to offer to Scholarship for Service recipients and other limited federal interest groups.
* See the presentation and fine out more [here](https://www.cisa.gov/presidentscup).

1. **Summary of Action Items**

* Minutes will be developed and sent to working group members along with the presentations.

1. **Next Meeting Reminder** – The next NICE Working Group meeting is scheduled for Thursday, February 20, 2020.