**NICE Working Group**

**Meeting Minutes**

**Date: June 22, 2016 Time: 3:30 PM EST**

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

1. **Roll Call and Ground Rules**

* Danielle Santos, NICE Program Manager, welcomed members to the meeting and stated that the Adobe Connect chat box feature should be utilized to provide feedback and ask questions.
* Danielle also noted that participation in the NICE Working Group (NICEWG) is not intended for advertising and promotional purposes and to keep this in mind when participating and using the chat feature.

1. **NICE Program Office Updates**

* Rodney Petersen, NICE Program Director, noted that as the summer months approach the NICEWG meetings and efforts will continue although attendance may be lighter.
* The NICE Strategic Plan launched in April. Subgroups and project teams will be asked to review goals and objectives in order to flesh out implementation and metrics, as well as, identify new initiatives that have not begun and build on current successes. While the subgroups are currently identifying goals, the full working group will be asked to participate in these efforts in the future.
* As a reminder, the Regional Alliances and Multistakeholder Partnerships to Stimulate (RAMPS) Cybersecurity Education and Workforce Development Grant is accepting applications. RAMPS advances NICE’s goals and the President’s Job-Driven Training and Ready to Work Initiative. Proposal submissions are encouraged. The deadline to apply is July 12th. The NICEWG will be updated on the outcome of the selected participants. Learn more here: <http://csrc.nist.gov/nice/ffo/>
* OPM has been tasked to develop The Human Capital Strategy Strategic Alignment which focuses on helping the federal government build the cybersecurity workforce pipeline. The NICE Cybersecurity Workforce Framework is key in measuring the workforce. More information on OPM’s strategy will be provided at next month’s meeting.
* The summer edition of the NICE eNewsletter will be published soon. The eNewsletter will continue to highlight subjects that align with the NICE Strategic Plan such as the latest in government, academia, and industry. Readers will find information on our affiliated projects, funded projects, as well as updates from the NICE working group. Current subscribers of NICE will receive the eNewsletter. Beginning in the fall, the eNewsletter will only be distributed to eNewsletter subscribers. To subscribe, sign up via the following link: <http://csrc.nist.gov/nice/enewsletter/index.html>

1. **Opening Remarks**

* President Kathi Hiyane-Brown, NICEWG Academic Co-Chair, welcomed members to the meeting.

1. **Standing Items**
   1. **Fun Facts – creating a culture of evidence**

* Montana Williams, ISACA, spoke on the topic of the State of Cybersecurity: Implications for 2016, an annual survey conducted by ISACA and the RSA Conference. The survey is directed by lead members of our community and in conjunction with the RSA team. The results show that there is a large focus on companies looking to bridge the workforce gap. Workforce development is what everyone is talking about due to a lack of resources.
* The audience was queried about cyber incidents and the likelihood of being a victim. Frequency and type of attacks were gauged. Participants were also asked about their ability to detect and respond to attacks. The findings show a large percentage can only handle simple threats or none at all. There is a slow up-kick in the level of concern and organizations are getting better but need to react and plan faster.
* Lack of skills is of high concern from responders. There is a skills shortage with less than half of applicants are actually qualified. There is a need to build skillsets in a short time. A focus of the Training & Certifications Subgroup is how to shrink the timeline.
* Montana also spoke about his recent session at CISSE. A part of the CISSE effort is to boost the writing and communication abilities of the workforce. Many say that up to 86% of skills are acquired during on the job training and that self-instruction remains prominent. NICE is raising the bar on the workforce by driving training and organizations into producing with more hands on skills.
* Regarding the capability of addressing cyber-incidents, the concern is high as is the lack of ability to detect and respond.
* Rodney mentioned interest in possibly presenting the NICE Workforce Framework to an audience of board of directors audience and determine their interest. Also, these facts align to one of many NICE goals including identifying gaps in skills and to raise awareness of training addressing how skills are developed.
* Please refer to the attached presentation and the URL below for additional information: <http://www.isaca.org/cyber/Documents/state-of-cybersecurity_res_eng_0316.pdf>
  1. **Report Roundup – learning from good ideas**
* Dan Waddell, Regional Managing Director, ISC2, spoke about The State of Cybersecurity from the Federal Cyber Executive Perspective.   
  The survey set out to capture the pain points of cybersecurity from the federal perspective by taking a deep dive into the responses of federal executives. The survey was conducted online and was taken anonymously. Respondents were senior level with 90% having more than 10 years of cybersecurity experience. The goal is to fix problems by putting together recommendations.
* One question posed asked surveyors about the mandate put into effect after the OPM data breach. The majority of respondents said there were no noticeable improvements. This was backed up by a GAO report. One aspect of this working group is to think of new ways to educate folks. Cybersecurity is isolated into IT which should change since cybersecurity is everyone’s job; all of the workforce needs cybersecurity education.
* When asked about motivation to stay at their job and how satisfied they are with their role, 25% stated they were highly satisfied. This is a powerful number and may have an effect on motivation. Pay, accountability, budget, and tools are things that allow people to affect their culture.
* When asked about the implementation of federal initiatives, most responded they have not really started.
* Finally, there is varied understanding of cybersecurity awareness. Many are not fully aware of key assets and are failing at the inventory piece. If we tie this information back to NICE we can think about how we’re educating the workforce, what we can do to protect, and how we do this to the best of our ability.
* Please refer to the attached presentation and the website link below: <http://r.search.yahoo.com/_ylt=A0LEVit2V2FXipwA0BUnnIlQ;_ylu=X3oDMTEyb2hvMTBmBGNvbG8DYmYxBHBvcwMyBHZ0aWQDQjE4NjFfMQRzZWMDc3I-/RV=2/RE=1466025975/RO=10/RU=https%3a%2f%2fwww.isc2.org%2ffedcyberexecsurvey/RK=0/RS=4rmc3S9uX0mrwpPnlu5dhKbyT0w->
* Feel free to reach out to Dan Waddell if you have questions on the survey: dwaddell@isc2.org
  1. **Event Engagement – highlights from recent events and upcoming events**
* Mary Aquino, at DHS supporting the cybersecurity awareness branch, spoke about National Cybersecurity Awareness Month (NCSAM).   
  NCSAM is a month designated to raising awareness about cybersecurity. This working group provides a great opportunity to bring the campaign to the forefront. During the 2015 campaign, there was typically a weekly event across the nation. Over 1,000 people were sent to speak at schools, businesses, and at various events such as lunch and learn, high schools, and conferences. This campaign was included at all DHS events. They are looking to improve on last year.
* The 2016 campaign will have weekly themes, each dedicated to different topics.
  + Week 1: General cybersecurity. Everyone has a role in protecting cybersecurity
  + Week 2: Cyber in the workplace
  + Week 3: Crime
  + Week 4: Technology
  + Week 5: Critical infrastructure and building resilience
* Organizations can get involved by sharing resources found at dhs.gov/stopthinkconnect location. There is an approved one pager that can be shared and requests for speakers from DHS and other organizations are available. Social media can be used to share the NCSAM hashtags and partners of NCSAM will host weekly twitter chats. Mary encouraged all of the NICEWG members to participate.
* Members were also encouraged to participate in the free Stop. Think. Connect effort. There are over 280 partners and industry partners.
* For more information see the attached presentation and visit: <https://www.dhs.gov/national-cyber-security-awareness-month>
  1. **Strategy Stories – new developments that align to NICE**
* Mike Volk, Instructional Specialist, Cyber & Technology Training at Anne Arundel Community College (AACC), spoke about the AACC Cyber and Tech Training. This effort aligns with the following NICE Strategic Plan objectives:
  + Objective 1.2: Reduce the time and cost for obtaining knowledge, skills and abilities for in-demand work roles
  + Objective 3.4: Promote tools that assist human resource professionals and hiring managers with recruitment, hiring, promotion and retention
* The strategy of continuing education and non-credit training related to cybersecurity is challenging. There are a lot of job openings and employers have a hard time filling them. From the community college perspective, it can be difficult for individuals interested in cybersecurity to sift through the information available and to figure out a pathway without assistance. Employers have a hard time running the risk of hiring the wrong person causing their business to develop higher costs through consultant hiring.
* Over the past few years much has been done to demystify cybersecurity careers and what they are. Two and four year institutions are building a cybersecurity pipeline. The workforce framework is maturing but there is a big gap between entry level and top tier jobs. Skills for hard to fill jobs are developed over time. There is a growing need in “middle bucket” to build skills quickly and acquire them affordably.
* AACC is developing training tracks that target the middle tier, create training options, create targeted pathways that are easy to read and understand. To work towards these goals, they are leaning on the NICE framework, specifically the network defense analysis training track.
* AACC is requiring three courses under the network analysis tools. Upon completion of these courses, individuals are eligible for a digital badge. These courses align with many KSAs for this job role.
* For more information see the attached presentation.
  1. **Metric Moment – what gets measured gets done**
* Lynne Clark, NSA, presented on the topic of Proposed Metrics for National Centers of Academic Excellence in Cyber Defense (CAE-CD).
* Metrics derived from CAE data is something new. In the past a lot of data has not been collected. Beginning this fall, schools will be required to report data. They have also looked purely at education but need to look at how to use education to expand the workforce. Some questions to be answered include the ROI on having CAE. Are graduates ready? Do they get their skills faster? They are looking at ways to solve these problems.
* The vision is to develop metrics and document the effectiveness of programs. Currently, information on CAE designations are broad while they should be more specific. Learning and performance can be measured when data is reported to gauge, for example, how ready should graduates be or is it up to the employers to ready them? There are grants offered for proposals on how to approach these issues.
* The idea is to come up with a newer model to gather metrics on how to measure skills and abilities. The hope is that the results will be available this time next year.
* For more information see the attached presentation.

1. **Subgroup Updates** 
   1. **K-12** - Virginia Lehmkuhl-Dakhwe, co-chair, let the group know the last meeting was held on June 8. Pat Yongpradit of Code.org, provided an overview of the K-12 framework for computer science education and asked for input. Although summer is impacting subgroup participation, the co-chairs are checking in with the project teams and Davina, the NICE liaison. The next K-12 subgroup meeting is scheduled for July 13th. Find more information on the framework here: <https://k12cs.org/>
   2. **Collegiate** – Casey O’Brien, co-chair, said the subgroup last met May. The next meeting is July 12th. Two conferences held in June kept subgroup members busy. This subgroup has reviewed the NICE Strategic Plan and made a decision to focus on two areas. Group one will focus on Goal 1.1, stimulate the development of approaches and techniques that can more rapidly increase the supply of qualified cybersecurity workers. Group two will focus on goal 3: 3.4, promote tools that assist human resource professionals and hiring managers with recruitment, hiring, development, and retention of cybersecurity professionals. Groups will meet to define deliverables in time for the NICE conference.
   3. **Competitions** – Jessica Gulick, spoke about the progress on the standardizing competitions white paper. About thirty organizations have been contacted and members are interviewing with questions on professionalizing competitions. Perspectives from hiring managers, security operators, coaches, STEM, etc. are being questioned. The goal is to complete interviews in the next week. Writing and editing will follow.
   4. **Training and Certifications** – Montana Williams, co-chair, stated that the June meeting was canceled due to technical issues, however, project teams have continued to work on a number of topics such as training environments, training gaps, and supply and demand. The goal is to have at least three good products by NICE conference.
   5. **Career Development and Workforce Planning** - Maurice Uenuma, co-chair, provided an overview of activities. This newly formed team met for the first time last month. The goal is to focus and narrow down the subject matter and then identify deliverables. The subgroup will focus on the demand/enterprise side. Different levels of abstraction/operational cybersecurity, HR and the human capital function area are where the concentrations lie.
2. **Project Progress Reports**
   1. **NICE Annual Conference** – Danielle Santos, NICE Program Manager, revealed the call for proposals window is now closed. The program committee is reviewing submissions and looking for ideas that align with the conference theme. The committee hopes to finalize the selections in the next week or so and to notify winners at end of June. After, the full program will be finalized and posted online. Open registrations will follow. Find out more at: [www.fbcinc.com/nice](https://word-edit.officeapps.live.com/we/www.fbcinc.com/nice)
   2. **NICE Challenge Project** – Danielle Santos, spoke about the five week workshop on introducing the NICE challenge and how to integrate it. The first class will be held on June 22nd and will be held the next several Wednesdays. Included in the workshop is a review of the cybersecurity framework and a walk through of the NICE challenges. Find out more at: <https://www.nice-challenge.com>

And here: https://cyberwatchwest.webex.com/mw3100/mywebex/default.do?service=7&nomenu=true&main\_url=%2Ftc3100%2Ftrainingcenter%2FLoading.do%3Fsiteurl%3Dcyberwatchwest%26RT%3DMiM0%26UID%3D4184742432%26apiname%3Dj.php%26ED%3D464936647%26servicename%3DTC%26FM%3D1%26rnd%3D1463486296%26needFilter%3Dfalse%26MTID%3Dtaed6f86048741b4cb8b82b032d4839f1%26siteurl%3Dcyberwatchwest&siteurl=cyberwatchwest

* 1. **National Cyber Summit** - Lynne Clarke spoke about the National Cyber Summit held earlier this month. The response was great with about 80 representatives from government leaders and senior industry representatives. College and university leadership was invited to discuss strategies. Several panels posed questions on the greatest challenges and what government can do to help them. Topics explored finding the right educators, uncovering resources such as cyber camps and more partnerships. More information on Gen cyber camps can be found here: <https://www.gen-cyber.com/>

1. **New Business**

* Rodney Petersen spoke on the topic of Education and Workforce Recommendations for the Commission on Enhancing National Cybersecurity.
* This commission is supported by NIST based on a President’s Executive Order. The Commission will make detailed short-term and long-term recommendations to strengthen cybersecurity in both the public and private sectors.
* One question to be answered is on the challenges in increasing the quality of the cybersecurity workforce. NICE has shared goals and objectives based our Strategic Plan. Observations thus far include distinguishing entry to advanced occupation levels. Greater emphasis on the people aspect of mitigating risk management through awareness exercises and the right workforce.
* Rodney emphasized working in concert on the lack of clearly defined career paths and recruiting/hiring/retaining the right workforce. This aligns with the NICE goal of nurturing a diverse learning community and the mission to increase minorities and women in the workforce.
* Another question is what the recommendations will make a difference over the next 10 years. This is a higher level high priority. The Commission Chair states the need for a national initiative to possibly review funding, priority, and make these issues significant with the new administration.
* Computer Science for All – There is high dollar cost to implement. Having a long term initiative is a good idea as it gets attention and necessary resources, at the state level as well.
* The NICE workforce framework will be a critical resource needed to align towards a common strategy. Members are encouraged to look at the Executive Order. Feedback is welcome via email at [nice.nist@nist.gov](file:///C:/Users/pharvey/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/CV462WB8/nice.nist@nist.gov)
* Find out more here: <http://nist.gov/cybercommission/>
* And here: <https://www.whitehouse.gov/blog/2016/04/13/announcing-presidents-commission-enhancing-national-cybersecurity>

1. **Summary of Action Items** - Danielle Santos stated that the meeting minutes and slide presentations will sent to all members.
2. **Next Meeting Reminder** – President Kathi Hiyane-Browne notified the working group that the next NICEWG meeting is scheduled for July 27, 2016.