**NICE Working Group**

**Meeting Minutes**

**Date: April 26, 2017 Time: 3:30 PM EST**

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

1. **Roll Call and Ground Rules** 
   * Danielle Santos, NICE Program Manager, welcomed members to the meeting. The NICE Working Group is setup to provide a mechanism for collaboration between academia, government and industry.
   * During this meeting the Adobe Connect chat box feature should be utilized to provide feedback and ask questions.
   * Danielle 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.
   * NICE is increasing its social media and outreach efforts. The Program Office is currently in the process of updating their website and some of the suggested changes will be rolled out over the next few days. The NICE LinkedIn account is now live and working group members will be provided with the link.
2. **NICE Program Office Updates**
   * Rodney Petersen thanked the NICE Working Group members for feedback received thus far on the new NICE website. Rodney reinforced Danielle’s statement about the Program Office’s intent to increase NICE’s social media presence. A social media presence will assist in promoting the work of the NICE Program Office.
   * Rodney commented that NICE continues to make progress and move forward. A new NICE website has been created. NICE is testing and piloting many initiatives such as the RAMPS program. The Program Office recently spoke with each RAMPS awardee and received a progress report on all of their work. Great work continues to be accomplished throughout all of the working groups. Finally, there are a lot of activities to engage in the public-private partnership to move forward with our efforts and initiatives.
3. **Standing Items** 
   * **Fun Facts** – Ken Slaght, San Diego Cyber Center of Excellence, spoke to the “Top Paying Certifications 2017”.
     + Ken remarked that there should not be too many surprises regarding the data.
     + The number one certification with a top salary of approximately $220,000 is CISM (Certified Information Security Manager). The low end job title of this certification is an Information Security Analyst with a salary of approximately $56,000.
     + The second top certification is CISSP (Certified Information Systems Security Professional). The salary for a CISSP certification tops out at approximately $121,000.
     + Third is a CCISO (Certified Chief Information Security Officer). The CCISO salary tops out at around $127,000. The low end of salary for a CCISO certification is around $41,000.
     + The fourth top certification is CISA (Certified Information Systems Auditor). The top position within this certification is an Internal Audit Director and the low end is an Information Security Analyst.
     + Finally, the CEH (Certified Ethical Hacker) comes in as the fifth top cyber certification. A position with a CEH certification ranges in salary from $130,000 to $50,000.
     + The data reinforces that a cyber career with one or two certifications out of high school or through an associate’s degree can land anyone a good job.
     + See attached presentation and find out more here: <https://www.globalknowledge.com/us-en/content/articles/top-paying-certifications>
   * **Report Roundup** – Rodney Petersen, NICE, spoke to “Information Technology and the U.S. Workforce”.
     + The report was put out by the National Academies of Sciences. The academy does an excellent job of in depth reporting and have produced several reports on cyber technology.
     + Generally speaking the report talks about the impact of IT and emerging technologies on the workforce. A committee considered questions about the drivers of increased automation and the types and scale of jobs that might be affected. The committee’s research report describes types and sources of data and analysis that enhance the understanding of IT and automation and how it impacts the workforce and informs future policy making.
     + Themes that emerge from the report’s findings include:
       - A need to evaluate and track technological progress and trends.
       - Technology adoption and impact within organizations refers to different industries using technology differently. Impacts of policy choices and the ease of transitions for workers to change fields varies.
       - We will see more people open to entering cybersecurity.
       - There is a societal acceptance of automation technologies.
       - Changing labor and skills demands, and implications for education and training, demonstrate that disadvantaged groups bear the cost for automation.
       - The on-demand economy speaks to emerging challenges as the workplace of yesterday is not the same as today.
       - New data sources, methods and infrastructures demonstrate the importance of interdisciplinary collaboration.
     + See attached presentation and find out more here: [https://www.nap.edu/catalog/24649/information-technology-and-the-us-workforce-where-are-we-Cand?utm\_source=NASEM+News+and+Publications&utm\_campaign=34d935d695-NAP\_mail\_new\_2017-03-20&utm\_medium=email&utm\_term=0\_96101de015-34d935d695-103066537&goal=0\_96101de015-34d935d695-103066537&mc\_cid=34d935d695&mc\_eid=a881298f96](https://www.nap.edu/catalog/24649/information-technology-and-the-us-workforce-where-are-we-Cand?utm_source=NASEM+News+and+Publications&utm_campaign=34d935d695-NAP_mail_new_2017-03-20&utm_medium=email&utm_term=0_96101de015-34d935d695-103066537&goal=0_96101de015-34d935d695-103066537&mc_cid=34d935d695&mc_eid=a881298f96%20)
   * **Event Engagement** –– Peter Meehan, Cybersecurity Workforce Alliance, spoke to “The Epic Challenge: The Threat Within”.
     + The Cybersecurity Workforce Alliance was formed in 2015. The goal of the alliance is to accelerate the supply of workforce ready entry-level candidates in a way that was acceptable to industry.
     + The mission came from: 1) the need to align and enhance applied-learning curricula to develop skills in cybersecurity and information risk, 2) reduce the amount of training for college hires, 3) increase awareness and experience and, 4) align professional certifications to role profiles.
     + A technical platform is needed to engage in this work. CWA had a business case from industry and were able to engage universities at a unique scale.
     + Education and industry were brought together to align the taxonomy. Industry has designed the curriculum to cover six major job roles (Information Security analyst, Compliance Analyst, Behavior Analyst, etc.). The majority of the curriculum is designed around the NIST framework.
     + The program has gone from 14 members in 2015 to over 500 members to date.
     + Partnership began with one university and has now expanded to an additional six.
     + The 2020 target is to move 100,000 students through this platform, have 5,000 plus members and 500 partner colleges.
     + The platform offers real-time mentor engagement. The alliance takes this into the classroom to work with mentors. Mentors perform assessments of students on a weekly basis. Students complete a twelve week course at the end of which they receive a passport demonstrating their validated skills badges along with a certificate.
     + For additional information contact: [CWA@iQ4.com](mailto:CWA@iQ4.com)
   * **Strategy Stories** - James M. Chatfield, Jr. spoke on the topic of “The Cyber Warrior Database (CWARD)”. This topic supports the NICE Strategic Plan objectives 1.1 and 1.3: (1.1) Stimulate the development of approaches and techniques that can more rapidly increase the supply of qualified cybersecurity workers and (1.3) Engage displaced workers or underemployed individuals who are available and motivated to assume cybersecurity work roles.

* The Army Reserve began working with Carnegie Mellon University in Pittsburgh, to develop the Cyber Warrior Database.
* Last summer an internal tool was used within the cyber brigade as an experiment.
* There is a lot of flexibility and a low cost of ownership.
* This tool can address training and mission from a talent perspective. The hope is to capture certifications and specialty classes and also look at operational experience.
* The tool is now a portion of the signal branch and is expected to be used Army wide.
* There are currently about 500 persons data stored. The tool is fairly scalable. A few years from now there should be between 6-10 thousand personnel records.
* Find out more here: <https://www.army.mil/article/177889/cward_may_be_master_repository_of_cyber_talent_for_reserve_component>
  + **Metric Moment -** Ben Piccarreta and Mike Fagan, NIST, spoke about Trusted Identities Group (TIG) Pilot Metrics.
* Ben spoke about technical models for employees that would otherwise not be available in the marketplace.
* TIG issued grants allowing state and local jurisdictions to use technology to improve services.
* Metrics will evaluate how these pilots have done.
* There will be a Federal funding opportunity to evaluate the gathering of metrics. TIG is investing tax payer dollars to see if the investment makes sense.
* A pilot is what can show or promote your solution and sell your capability. Through these pilots citizens are enabled to prove their identity online and signup for biometric login.
* Internally, TIG produces quarterly reports to monitor four separate areas in a real-time way. The reports cover the number of individuals that are impacted by pilot, partners directly involved or indirectly impacted, if solutions are innovative and what type of information is given, who assesses and is the end information secure.
* Metrics are important to cybersecurity.
* See attached presentation and find out more here: [https://www.nist.gov/itl/tig](https://www.nist.gov/itl/tig%20)

1. **Subgroup Updates**
   * **K-12** – Carlos Garcia, co-chair, provided the K-12 update.
     + The group has been discussing the planned activity of a Cyber Awareness week to take place over the week of November 13 – 17, 2017. Much of the discussion was centered around developing a Cybersecurity Awareness kit. Participants would be able to download the kit which would include information on activities such as conducting presentations or how to hold a career fair, etc.
     + The K-12 Conference will be in Nashville, TN over December 4th and 5th. The call for proposals closes on May 31st.
   * **Collegiate** – Rodney Petersen, NICE Program Office, provided the Collegiate update.
     + During the last Collegiate subgroup meeting, the Arizona RAMPS Project Coordinator spoke to the group about their initiatives.
     + Currently the Collegiate group has two project teams.
       - The first is focused on academic pathways and is headed up by Kevin Powers.
       - The second is focused on tools, technologies and skill sets and is led by Stephen Miller. This team is looking at mechanisms for job seekers to connect with employers. One key activity planned is to review the National Students Cybersecurity Student Association and what they are doing.
     + Please reach out to Heather Monthie (Heather Monthie ([Heather.Monthie@gcu.edu](mailto:Heather.Monthie@gcu.edu)) and Casey O’Brian ([cobrien@nationalcyberwatch.org](mailto:cobrien@nationalcyberwatch.org)) ​if interested in joining.
   * **Competitions** – Dan Manson, co-chair, provided the Competitions update.
     + Dan reported that the March Cyber Madness has concluded and UMD Baltimore County is the new National Champion.
     + The winner of the open division of CyberPatriot was North Hollywood High School.
     + The next Competitions subgroup meeting is this Friday, April 28th at 3:30pm EST.
   * **Training and Certifications** – Linda Montgomery, co-chair, provided the T&C update.
     + The Framework to Certifications team, headed up by Chris Kelsall, has put out a white paper that addresses concepts and the initial mapping to the framework. It looks at how to better move into the options so that we are not just producing.
     + The Skills-based Training & Performance–based Certification team, led by Doug Rausch, are defining proficiency roles. They are looking to increase from 3 to 4 levels of proficiency roles.
     + The Supply and Demand/Training Gap team will dovetail the work of the other two groups once complete and take all of the information to a higher level. Expect to see more work from this group in June.
   * **Workforce Management** - Maurice Uenuma, co-chair, provided the Workforce Management update.
     + The Human Factors project team concluded with its seven working sessions. All of the content has been pulled together into an excel sheet. The excel file is available on SharePoint if anyone wishes to review it: <https://nistgov.sharepoint.com/sites/NICEProgram/NICEWG/WorkforceManagement/>.
     + The Literature Review team has pulled together, reviewed and written synopses on material supporting the work of the Human Factors team.
     + The next steps will pull together the work of both the Human Factors and the Literature Review teams to build a template for the deliverable itself with an eye for intended users. The group will also be reaching out to the broader community to ensure that what they create it addressing their concerns.
     + Please reach out to Kristin Judge ([Kristin@staysafeonline.org](mailto:Kristin@staysafeonline.org)) and Maurice Uenuma ([muenuma@tripwire.com](mailto:muenuma@tripwire.com)) ​if interested in joining.
2. **Project Progress Reports** 
   * **NICE K-12 Cybersecurity Education Conference**

* The conference is scheduled to be held from December 4-5 in Nashville, TN, at the Omni hotel.
* Calls for proposals close on May 31, 2017.
* This year’s theme is aligned with the National K-12 Implementation Plan which includes:
  + - * Increasing Cybersecurity Career Awareness
      * Infusing Cybersecurity Across the Education Portfolio
      * Integrating Innovative Educational Approaches
      * Designing Academic and Career Pathways
      * Promoting Digital Literacy
* For more details on these tracks and the conference go here: <https://www.k12cybersecurityconference.org/>
  + **NICE Annual Conference**
* The 8th annual NICE Conference and Expo is scheduled for November 7-8, 2017 in Dayton, OH.
* This year’s theme, “Challenging the Status Quo: Building a Robust and Sustainable Cybersecurity Ecosystem,” was chosen to inspire presentations that aim to shape the way in which the nation identifies, educates, trains and builds a 21st century cutting-edge Cybersecurity Ecosystem.
* The conference will feature 3 tracks:
  + - * Developing Cybersecurity Talent through Education and Training
      * Nurturing Cybersecurity Communities through Academia, Industry, and Government Collaboration
      * Professional Development
* The Call for Proposals submission deadline is May 31, 2017. Decisions will be made in early June with a full schedule and conference sign up ready in July.
* Find out more here: <https://www.fbcinc.com/e/nice/default.aspx>

1. **New Business**
   * **Presenter: James Ashley spoke about the NICE Challenge Project**

* The 2017 conference circuit has been confirmed. Four conferences have been chosen thus far with more possible.
* The Pacific Rim Collegiate Cyber Defense Competition (PRCCDC) NICE Challenge High School event has just completed. Students run through the gauntlet on the challenges to assess their skills and get hands-on access with cybersecurity skills and services.
* Over the coming year four quarterly ‘teach the teacher’ sessions will be held to help integrate the challenge into their materials.
* WebPortal updates:
  + - * As a reminder, the older challenges have a simple interface that allows access to the console.
      * Newer challenges have integrated more specific NICE Cybersecurity Workforce Framework tasks. This integration will continue.
      * Near term updates include automated end state checks, work order ticket system, documentation and post challenge questions, curator challenge grading room, and on demand challenges for pod players. There is a content release slated for next week.
      * Long term updates include Learning Management System (LMS) Support, mobile support, team challenge support, and curator reservation challenge selection limiting plus challenge reset limit.
* Regarding the question on other opportunities to engage in High Schools, this is decided on a case by case basis. There is interest should good opportunity arise.
* The NICE Challenge is open to High Schools. Accounts can be requested through our website here: [https://www.nice-challenge.com](https://www.nice-challenge.com/)
* When asked about a schedule of workshops, James stated that the first will be through CyberWatch West and are currently polling for dates. Others are in the planning stages and dates/times will be set later.
* For more information see attached presentation.
  + **Presenter: Lynne Clark spoke about CAE National Centers/Regional Centers**
* The current belief is to concentrate time on things that are good for the program to evolve criteria and secure funding. There is current funding to setup six regions, partially based on geography and the number of schools, the heat map (see attached presentation) reflects the concentration of schools. In process of engaging those schools already designated.
* Red stars are hub CAE Regional Resource Centers (CRRCs). There is an attempt to try to organize more collaboration to begin to identify different needs.
* There is an on-going effort working with professional development to address the educator shortage and offering help to schools who want to come into the designation.
* Others that are identified have national responsibility such at Whatcom Community College who are managing a team of mentors who understand the criteria and will work to assist with the application process.
* This program has increased the success rate.
* This program is putting resources out into the community and working with schools that want to become part of the program. These are all community colleges, four year, and graduate school colleges.
* Most regional hubs are helping with administration activities and are typically two year colleges. Four year or more are available for assistance. Schools are working within their regions.
* Several are involved in K-12 and are working on pipelines.
* See attached presentation and find out more here: <https://www.caecommunity.org/news/announcing-14-new-cae-cyber-defense-resource-centers>

1. **Summary of Action Items**
   * Meeting minutes and presentations will be shared with the group once available.
   * The NICE Conference call for proposals deadline is May 31, 2017.
   * The K-12 Conference call for proposals deadline is May 31, 2017.
   * As a reminder, the Program Office is always looking for topics, help, ideas, and suggestions on the standing items portion of the agenda each month. Contact the Program Office with recommendations. [nist.nice@nist.gov](mailto:nist.nice@nist.gov)
2. **Next Meeting Reminder**

* The NICEWG will meet on May 24, 2017